Effects of Government Expenditure, Credit and Tax Policies on the Economic Development of Iran with Special Reference to the 1960–76 Period

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Part Three

Financing Government Expenditure

Introduction

In the first part, we have seen that revenue constraint has been an impeding factor to the growth of public expenditure for a long period up to 1974. As we explained whenever the necessary financial resources have been available to the government, the increasing of spending has not been problem. Particularly, it has been found that revenue constraint has been felt more when the economy has been facing a foreign exchange constraint. The effect of this constraint has been the slowing down of the growth of public capital expenditure rather than public consumption (see part one). This pattern has been affected by the political factor and the foreign exchange constraint which determines the trade-off point between capital and current expenditure.

The existence of revenue constraint indicates the deficiency of the fiscal system which has not been able to bridge the existing gap between the 'desirable level' of expenditure and the 'tolerable burden' of taxation[1]. While in a developed economy, as was explained in part one, the gap can be bridged through the occurence of 'displacement effects', in a developing country such a gap may be structural and due to the lack of necessary tax handles and low taxable capacity as well as the political structure of the society.

In the first two chapters in this part, we will examine the factors which caused such rigidity in the financing government expenditure in developing countries and its effects on the pattern of economic development. Generally, there are two channels of financing, financing through taxation (chapter 6) and deficit financing, whose merits and the extent to which they may be used

can be explained by their effects on economic development with regard to reallocation of resources, savings, investment and redistribution of income.

However, in the evaluation of the tax system, one has to be cautious about the effects of oil revenue. There is a considerable and important difference between the government revenue from ordinary taxes and that of the oil sector. Although in the Iranian budget the oil revenue has been partially treated as income tax on oil companies and partially as the profit of government agencies, there are enough reasons to treat oil revenue differently from other taxes. First, oil is a form of natural wealth for which there exists the claim of future generations. Secondly, the change of tax rates imposed on the profit of oil companies is subject to mutual agreement between both parties and is affected by external factors. Thirdly, the tax rate is not subject to income or company taxes and therefore change in the tax system or tax rates do not affect the government revenue from oil companies. Fourthly, the revenue from oil is paid in foreign currency which cannot be considered as a mobilizing of domestic savings. This foreign exchange nature of the oil revenue is completely different from domestic taxation. Finally, the oil sector affects the economy directly and indirectly in way which cannot be considered as merely fiscal and have far reaching effects on the economic development of Iran. For these reasons, we have devoted a seperate chapter to the development of oil sector that is the third chapter of this part (chpater 8).

Note

1- The gap is wider in developing countries because on one hand the need for the desirable level of expenditure is high, on the other hand, the "tolerable burden" of taxation is lower due to low level of income. Gupta, S.P., Op.cit. PP. 36-7.

Chapter Six

6 Structure of Taxation in Iran

Introduction

To evaluate the performance of a tax system, one has to look for a set of accepted criteria with which a particular tax system can be compared. However, although such an ideal tax system cannot be illustrated, it is possible to determine different aspects which should be considered in the making of objectives and tailoring the tax system.

It is true that the basic function of the tax system is financing government expenditure. If we accept the need for government expenditure as desirable, first of all, the tax system should be flexible and income-elastic enough to raise the necessary revenue. Since there are various ways of raising such revenue, by elaborating on the tax handles and choice of tax bases, a good tax system must be able to fulfill other important functions at the same time. In particular, an ideal tax structure should consider the changes in the pattern of resource allocation toward the maximum utilization of scarce resources inside the economy, distribution of income and incentives to work and invest[1].

However, since in developing countries the tax strucutre is underdeveloped and the gap between the 'desirable level' of government expenditure and the'tolerable burden' of taxation is wide, there is an important emphasis on the revenue raising aspect of taxation which to a large extent has undermined other functions of the tax system in developing countries. This does not mean that revenue raising would not affect the allocation of resources and distribution of income. These effects would be produced as by products rather than as a part of government objectives in tailoring the tax system. Such effects may be undesirable and cause misallocation of resources and maldistribution of income which would reduce the importance of the tax system.

Due to the importance and rigidity of revenue constraint, a number of studies have tried to find out the reasons for the low government revenue and inflexibility of the tax system in developing countries. Here, first, we will examine such reasons and secondly we will analyse the effects of over-emphasising the revenue aspect of taxation and the undermining of other functions of the tax system on the pattern of economic development in Iran.

6-1 Performance of the Iranian Tax System

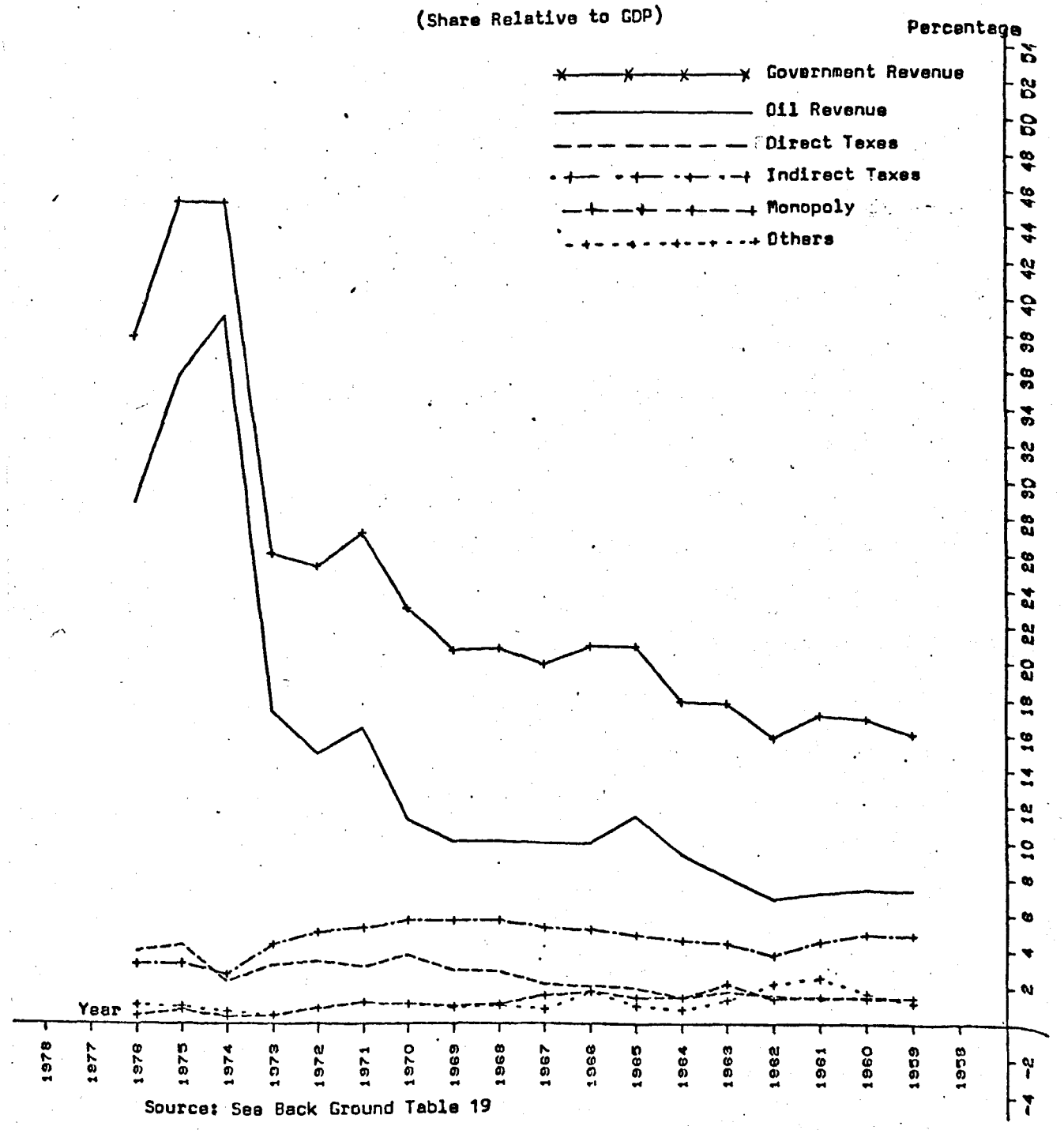
A first glance at figure (6-1) shows that the tax revenue relative to the GDP (tax ratio) has rapidly risen during 1959-76. It appears that the tax ratio has moved up from 14.3 percent in 1959 to 38.0 percent in 1976. Such a rapid increase seems to make the Iranian case as an exception in developing countries and may give an illusion about the flexibility of the Iranian tax system. Although there is some improvement in the tax ratio, the rapid rise during 1973-76 has been due to the rising of oil prices which is extranous to the Iranian fiscal system. When this distortion is avoided, the tax ratio in 1976 is not higher than that of 1971 i.e. 14.1 percent (the government revenue without oil/GDP without oil). Therefore, the Iranain fiscal system is as rigid as in any other developing countries and the rising of the tax ratio may not be to the government's credit. In order to evaluate the tax performance from the revenue stand point, one should recognise the 'taxable capacity' of the economy and then find out to what extent the government has materialised the potential tax ratio.

Generally, the rising of the tax ratio is largely related to the availability of taxable bases which is more important determinant of the tax level in developing countries than the variation in demand for government expenditure (see chapter one). The taxable bases are determined by the 'taxable capacity' of the economy and the 'tax effort' of the government. While the former is

Figure (6-1)

Composition Of Government Revenue

(Share Relative to GDP)



Source: See Back Ground Table 19

in turn affected by merely economic factors, the latter is largely influenced by socio-political determinants. The higher the 'taxable capacity', the greater will be the potential capacity to tax; and the higher the 'tax effort', the larger will be the actual tax ratio. There is an inter-dependence relationship between these two factors. On the one hand, the'tax effort' will be confined by the level of the 'taxable capacity' of the country, on the other hand, the high level of the 'taxable capacity' may release the pressure on the government to increase its 'tax effort' in order to maintain or raise its revenue relative to the GDP, and therefore, may result in a lower tax ratio than that which is determined by the'taxable capacity' of the country. Thus, the changes in the level of 'taxable capacity' and'tax effort' in the process of development may explain the rising of the tax ratio in Iran. The changes also may be causes for changes in the relative share of the component of government revenue.

To explain the changes, first, we will discuss the 'taxable capacity' and the 'tax effort' determinants, and then, how changes in these factors have affected the share of different components of the total government revenue. On one hand, it may show the extent to which taxation has been used as a means of fiscal policy and, on the other hand, it may explain the extent to which the government's 'tax effort' has been affected by government economic policy.

6-1-1 Taxable Capacity

In an extreme case following N.Kaldor and Chelliah[2] one may assume that taxation imposes no social and political burden on the society and therefore the 'taxable capacity' may be defined as the difference between the national output and subsistence consumption which allows the population to maintain its labour capacity[3]. Taking into account the capacity of private investment, the 'taxable capacity' of a mixed economy depends on the excess

of its actual consumption over the 'minimum essential consumption of population'[4]. But if we consider the unproductive investment of the private sector, the 'taxable capacity' of the country will be still higher. However, in measuring the 'taxable capacity' we may be confronted with two basic problems. What factors determine the 'minimum essential consumption' and how is it possible to measure the unproductive investment.

The 'minimum essential consumption', apart from the strict biological requirement of subsistence, depends on social conditions and habits[5]. Although there is no clear definition for subsistence level, it is possible to determine the 'minimum essential consumption' in accordance with the pattern of consumption of the community. To overcome this problem, we may assume the actual consumption of first year of the period under study as being the minimum essential consumption. Taking into account the rate of growth of population, consumption should increase at the same rate. For unproductive investment, since there is no data available, we have to accept all private investment as productive. The taxable capacity calculated according to this definition indicates the upper limit of taxability; in other words, it determines the maximum share of GDP which can be extracted by the government. As table (6-1) shows, the gap between the potential and actual tax ratio has rapidly widened; the former is almost double the latter in 1973. It is true that the maximization of government revenue as above may be impractical and even unnecessary. But, the rapid rising of taxable income not only indicates a large taxable base, but also, the appropriateness of taxing the consipicuous consumption. Since the pattern of distribution of income has worsened during the 1960-76 period, it is very likely that the luxury consumption of the upper classes accounts for a large share of the growth of private consumption. Taxing such private consumption is not only an important source of government revenue, it is also desirable from both a reallocation of resources and a redistribution of income point of veiw.

Taxable Capacity
At Constant Prices

Table (6-1)

Billion Rials

Year	Actual Private Consumption	Assumed Private Consumption at the rate of 3 %	GDP	Extra Tax Potential Ratio %	Actual Tax Ratio %	Taxable Capacity Ratio %
1959	207.7	207.7	280.2	-	14.9	14.9
1960	215.3	213.9	296.6	0.5	15.8	16.3
1961	221.0	220.3	306.4	0.2	15.9	16.1
1962	230.8	226.9	328.1	1.2	15.1	16.3
1963	241.8	233.7	377.7	2.1	16.3	18.4
1964	262.4	240.8	410.3	5.3	16.7	22.0
1965	272.9	248.0	460.7	5.4	19.5	24.9
1966	306.4	255.4	506.9	10.0	19.5	29.5
1967	330.6	263.1	566.2	11.9	19.0	30.9
1968	370.3	271.0	634.4	15.6	19.8	35.4
1969	397.7	279.1	697.6	17.0	19.8	36.8
1970	437.8	287.5	780.1	19.3	20.8	40.1
1971	431.8	296.1	853.3	15.9	25.5	41.4
1972	477.1	305.0	954.7	18.0	24.3	42.3
1973	538.6	314.2	1242.9	18.0	24.5	42.5
1974	619.9	323.9	1709.3	17.3	43.2	60.5

Source : BMI, Annual Reports 1970 - 74; and National Income Of Iran, 1959 - 71.

However, in the above definition, we assumed no increase in the standard of living and no economic and socio-political problems in the imposition of taxation. If the existing pattern of consumption, at any moment, is taken as the desirable level of consumption, the improvement of the tax ratio will be related to the improvement of the tax system. Since tax should be taken in the form of money, the degree of monetization would be important[6]. Since the degree of monetization and productivity are different in different sectors of economy, the sectoral distribution of national income would also be important[7]. In total these are the changes in economic structure which determine 'taxable capacity', if we assume no restriction on the pattern of consumption.

As has been said, the tax ratio is largely related to the changes of the tax bases in the process of development. As the structure of the economy changes, with economic development the nature of the tax base changes as well, and with it the 'handles' to which the revenue system is attached[8]. In the early stage of development, the economic structure of low income countries imposes sever limitations on the structure of the tax system. The predominance of the agricultural sector and difficulty in reaching it through direct or indirect taxation would leave aside a small portion of economic surplus to be taxed. The high share of agricultural sector is accompanied by a low per capita income, a large subsistence sector and less commercialization and industrialization. Moreover, since the incomes of the agricultural wage earners and the profit margins of enterprises are relatively lower and also it is administratively more difficult to tax enterprises in this sector, the taxable surplus will be lower. Therefore, in the process of development a negative relationship between tax ratio and the share of the agricultural sector would be expected[9].

While most modern direct and indirect taxation is not applicable in the early stage of development, it may be expected that the government will try to find the easiest tax source. Since most imports and exports are visible

and readily identified and it is comparatively easy to impose taxes on imports which can only come through a few controlled points of entry, it may be expected that a higher share of the foreign sector or 'degree of openness' would result in a higher tax ratio[10].

However, it can be argued that on the export side, a developing country would be confronted with the problem of demand elasticity for its exports, and it may only in special circumstances be able to shift forward the burden of tax without losing the possiblity of earning foreign exchange which is vital for a developing country. Also, a developing economy in the stage of industrialization would import capital goods and raw materials for the infant industries which cannot generally be taxed. Since only a part of imports are the base for taxation, the existing relationship will be only between the 'taxable imports' and the tax ratio[11]; so, surely, the whole share of the foreign trade sector may not be representative. However, the size of the'taxable imports' depends on the possibility of earning foreign exchange on the part of exports, and it would be expected that a country with a greater mineral and oil share in its exports would have larger 'taxable imports'[12]. Therefore, the importance of the size of the foreign trade sector as a determinant of the 'taxable capacity' may be attributed to the mineral and oil content in the total exports and income.

Along with economic development, we would expect a decrease in the share of the agricultural sector and an increase in the share of other sector, especially the industrial sector with a higher productivity and thereby a higher economic surplus. It would also open a new tax handle to the government. Since administrative ease of tax collection and the large economic surplus are the main factors which affect 'taxable capacity', it would be expected the other sectors rather than agricultural sector would bear these characteristics. In this respect, the mine and oil sectors are a positive determinant of the 'taxable capacity', not only because they produce a large surp-

lus than any other sectors, but also because of the heavy fixed investment involved. Investment associated with the mining and oil industries will tend to confine the operation to a few large firms often foreign owned. It is also administratively easier and politically feasible to levy income or export taxes on these firms[13].

The value added produced in the service sector of an economy such as, trade, banking and so on may be taxed more easily than that produced in the agricultural sector. Also, the size of the service sector may show the degree of monetization, urbanization and commercialization. So it may be expected, in the process of development, that the service sector appears as a positive determinant of 'taxable capacity'.

The above shows that along with economic development, the share of sectors other than the agricultural will increase and thereby the 'taxable capacity' of the country. To measure the 'taxable capacity', it may be sufficient to relate the tax ratio to the changes in the structure of the economy with regard to changes in the relative share of different sectors. In this way the regression line so created will show the 'taxable capacity' or the potential tax ratio of the economy in the long run[14](in the following equation, the 1974-76 data has been omitted due to the short effects of the oil revenue).

$$T/Y = C_1 A/Y + C_2 N/Y + C_3 Z/Y$$

(1) $$T/Y = \underset{(-4.339)}{-0.352\ A/Y} + \underset{(-4.728)}{0.283\ N/Y} + \underset{(-7.310)}{0.384\ Z/Y} \qquad R^2 = 0.904$$

While A/Y = Share of Agricultural Sector in the GDP

N/Y = Share of Oil Sector in the GDP

Z/Y = Share of 'other sector' consists of manufacturing and service sectors.

T/Y = Tax Ratio (tax revenue/GDP)

As equation (1) indicates the changes of 'taxable capacity' are largely affected by the share of 'other sector'. The high coefficient of Z/Y shows

that the decreasing share of the oil sector in the future may be less effective than is expected. The steady rising of the tax ratio can be attributed to the steady changes of the economic structure towards the dominance of industrial and service sectors.

However, the above 'taxable capacity' explains the rising of the tax ratio in the process of economic development and where ever the tax policy has not been used to keep the standard of living lower than that of the community's normal pattern of consumption. In other words, the 'taxable capacity' so calculated shows the improvement of the tax ratio to a rise in income, degree of monetization and changes of economic structure. The latter two create the necessary conditions for increasing the elasticity of the tax system relative to the rising of income. Therefore, without extra effort, the government can gain a higher revenue in the process of economic development. According to the above equation of 'taxable capacity', the tax ratio for 1973 should be around 26 percent which is higher than the actual tax ratio.

If the conspicuous consumption of upper classes and their unproductive investment is considered, the economic surplus to be tapped is higher than that which is determined by the above equation. Table (6-2) shows the 'taxable capacity' measured for the two extreme cases; the 'appropriate taxable capacity' should be somewhere in between. If the actual tax ratio is near to the upper limit, it will imply that tax policy has been used to reduce private consumption. However, the actual tax ratio or the 'tax effort' of the Iranian government has been lower than the 'appropriate taxable capacity'.

In the early stages, the application of the tax policy is bound to be limited due to the restrictions of tax handling and tax bases. With the improvement of the tax 'handles' and bases and thereby the tax elasticity, the income generated in different sectors of the economy is more easily reached and a deliberate tax policy can be used more effectively. Thus, one may expect to see a tax policy aimed at reducing conspicuous consumption in order to increase

Appropriate Taxable Capacity

Table (6-2) Percentage

Year	Minimum Taxable Capacity Ratio	Actual Tax Ratio	Maximimum Taxable Capacity Ratio
1959	14.7	14.9	14.9
1960	15.3	15.8	16.3
1961	15.6	15.9	16.1
1962	16.1	15.1	16.3
1963	16.9	16.3	18.4
1964	16.9	16.7	22.0
1965	17.8	19.5	24.9
1966	18.9	19.5	29.5
1967	19.7	19.0	30.9
1968	20.4	19.8	35.4
1969	21.3	19.8	36.8
1970	22.4	20.8	40.1
1971	23.3	25.5	41.4
1972	23.6	24.3	42.3
1973	25.2	24.5	42.5

Source : See Table (6-1)

tax revenue, if political factors do not impede it. As has been explained, the 'tax effort' of the government is not only affected by political factors but is also influenced by economic policy with regard to encouraging the private sector and redistribution considerations which still cannot be seperated from the political tendency of the state.

6-1-2 Tax Effort in Iran

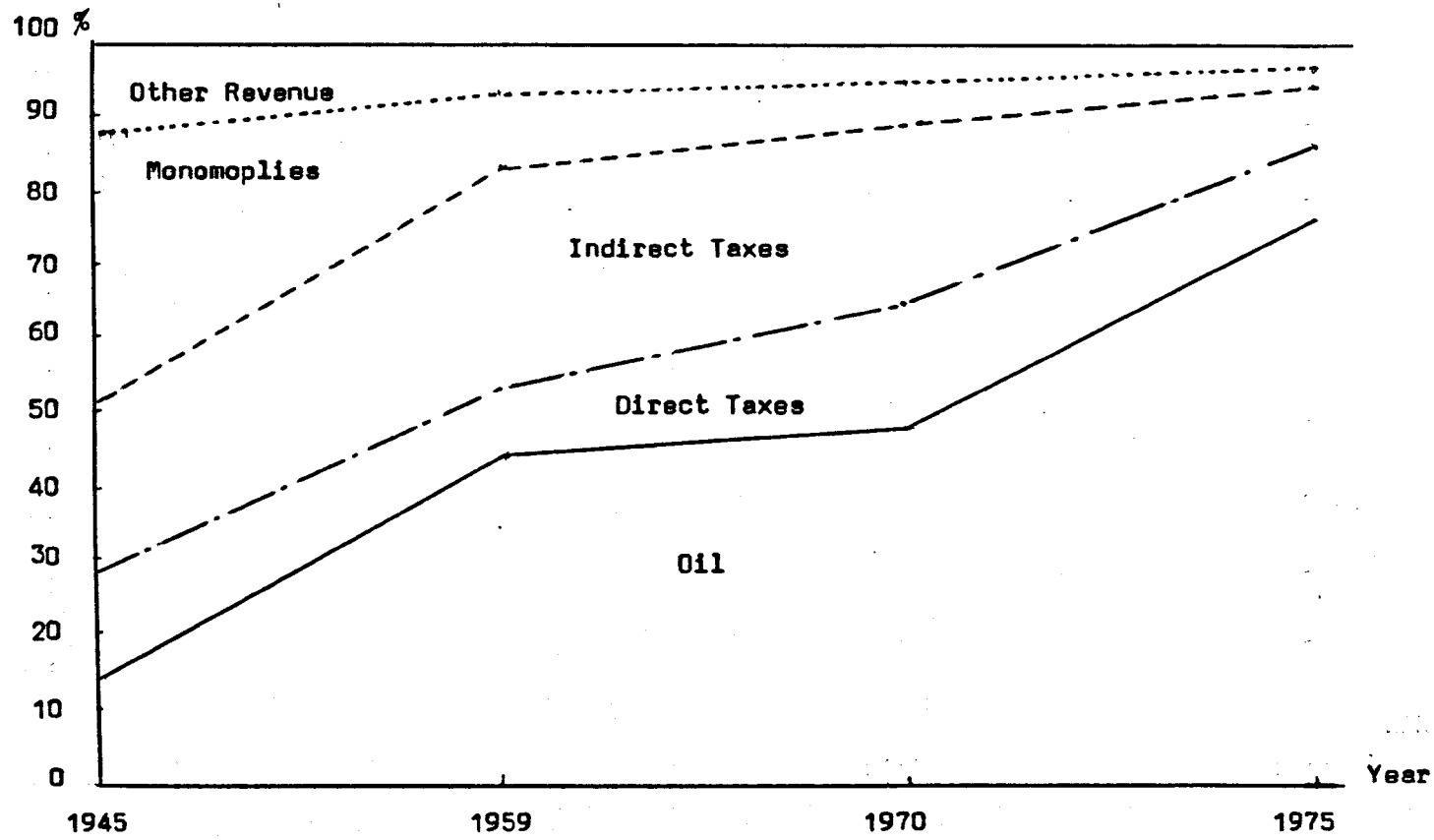
To evaluate the tax effort of the government, it is necessary to understand the development of the tax structure, the relative importance of different sources of government revenue and changes in the tax law.

The development of the tax structure in regard to the different sources of government revenue shows that government monopolies and indirect taxes are the major sources of revenue when the economy is in the early stages of development. The dominance of the agricultural sector and weakness of tax administration limit the possibility of raising revenue through direct and even indirect taxation other than custom duties. Therefore, the direct control of few agricultural products through a government monopoly right may be the most feasible way. The government monopoly in tobacco in Iran accounted for 38 percent of government revenue and the custom duties contributed another 20 percent during the 1941-45 period when the low level of oil revenue had limited the import capacity of the economy (figure 6-2). This kind of tax system is extremely rigid from the revenue stand point. The government revenue is dependent on the growth of production of particular agricultural products for which the demand is income-inelastic and supply very sensitive to the price of other agricultural products. This limits the growth of government revenue, at a time when the expansion of the industrial sector and government services need a flexible and rapidly growing source of revenue. Also, the tax system is very sensitive to the availability of foreign exchange earnings whose shortage is enormous. With an increase in the oil revenue, that is, from 16 per-

Figure (6-2)

Composition Of Government Revenue

During 1945 - 75



Source: See table (6-8) and Back Ground Table 19.

cent of the budget in 1941-45 to 45.6 percent in 1959, the capacity of the taxable imports extended and therefore the indirect taxes (mainly custom duties) rose up to 30.3 percent of government revenue in 1959.

The sluggish growth of oil revenue and the increasing share of capital goods and raw materials in the total imports, due to the first phase of industrialization, resulted in a decreasing share of indirect taxes during 1959-70. As has been explained, the restrictive nature of the economic structure in the early stages of development forces tax administration to resort to the easiest channels and to the sector in which the major economic surplus is generated. With the change of economic structure towards the dominance of the industrial and service sectors, the nature of tax 'handles' will also change towards the use of direct taxation. As appears in figure (6-2), the share of government monopolies in particular declined to 8.7 percent in 1959 and 4.6 percent in 1970. This was largely due to the decreasing share of the agricultural sector in the GDP from which government revenue had been coming. The share of direct taxes in the total government revenue exhibits an increase of 8 percent (from 8.7 percent in 1959 to 16.5 percent in 1970) during 1959-70. However, the sharp increase in the oil revenue has overshadowed the growth of government revenue from taxation during 1971-75.

Totally, the relative changes in the composition of government revenue show that the oil sector was only a minor factor in increasing the tax ratio during 1959-70 (figure 6-1). Relatively, direct taxation was the main contributor to the rising of tax ratio. Although the changes of the tax 'handles' and the increase of income elasticity of the tax system may have been the major factor, the effects of the government's efforts to accommodate the tax system to the needs of the economy by changing tax law and improving the tax administrative efficiency cannot be ruled out. Moreover, the changes in tax law can also explain to the extent to which economic policies and income redistribution have been considered in the making of the tax laws.

6-1-2-1 Structure of Direct Taxation

In present Iranian tax law, there exist only two distinctive forms of direct taxes, income taxes and other taxes. The former consists of tax on earned and non-earned income, although a distinction has been made with regard to sources of income including wages and salaries, agricultural activities, properties and estates, interest, professions and companies. The latter includes tax on wealth in particular inheritance tax. The tax law in Iran is largely a law rather than a means for the application of fiscal policy. For this reason, one may find it more useful to distinguish between three forms of direct taxation, income taxes, company tax and wealth tax.

Income taxes

The first comprehensive income tax law was passed in 1930; income were classified according to their sources, and different tax bases and rates were used for each category. Those imposed on government and municipal salaries ranged from 0.5 to 4 percent, in the case of other taxable income, the rates were between 1 to 3 percent[15]. Excluded from the law were incomes received from cultivated lands and rents from real property which were subject to other taxes (indirect taxation). Several amendments were made until in 1949 a new tax law was introduced. These amendments dealt with the progressivity of income tax imposed on the private sector, increase of tax rates up to 20 percent in 1938 and 30 percent in 1943; and the inclusion of interest, commission and dividends in the taxable income[16].

In the 1949 and 1957 tax laws, the progressive income tax was replaced by a lump sum tax in the case of small traders, shopkeepers, artisians and the self-employed, in which the bases of assessment and amount of tax payable were subject to negotiation between the Ministry of Finance and a guild representative. Most of the other types of income were taxed on a flat-rate basis including agricultural property and contractors which were computed at

a rate of 10 percent of net income in the case of agricultural property and at a rate of 2 to 4 percent of gross income in the case of contractors[17]. The progressive tax was in force only for merchants, company and combined personal (over 700,000 Rls.) incomes which were taxed on a marginal basis (see table 6-3).

However, the 1957 tax law extended the existing exemption in the 1949 tax law which covered most of the people. In particular it exempted:[18]

a)- All person in receipt of an annual income of less than 3000 Rls.

b)- Government employees.

c)- Wage and salary earners with an income up to 48000 Rls.

d)- All farmers in respect of their share of crops.

e)- Agricultural income in the Province of Khozestan.

f)- Income derived from the rental of agricultural equipment.

g)- Interest on fixed deposit accounts with banks and income from government loans and treasury notes.

In 1967 a new tax law was introduced which is still in force, with some amendment made during 1970-75. The new tax law is progressive and all income other than wages and salaries and property (except rental property) are subject to article 134 which determines tax rates for various groups of income (see tables 6-4 and 6-5). The taxable income of different activities are defined in six parts of the tax act and various exemptions and tax holidays are granted to the manufacturing and agricultural sectors[19].

Although the 1967 tax law brings government employees under the income tax laws, an exemption is granted to them. Up to 240 thousand Rls. annual income is exempted from 70 percent of the related tax and from 240 thousand Rls. to 700 thousand Rls. 50 percent is exempted. Apart from the above exemption, the general exemption of 60,000 Rials annual income in 1967 rose to 144,000 Rls. in 1974. Rates of tax have changed as shown in table (6-6). Wages and salaries over 700,000 Rls. are subject to article 134.

The Income Tax Rates
In The 1957 Law

Table (6-3)

Rials

Income				Marginal Tax Rates	Effective Tax Rates
From	0	To	48,000	Exempt	-
"	48,001	"	100.000	12 %	6.2 %
"	100,001	"	200,000	15 %	10.6 %
"	200,001	"	300,000	18 %	13.0 %
"	300,001	"	400,000	21 %	15.0 %
"	400,001	"	800,000	24 %	19.5 %
"	800,001	"	1,200,000	30 %	23.0 %
"	1,200,001	"	1,500,000	33 %	25.0 %
"	1,500,001	"	2,000,000	36 %	27.8 %
"	2,000,001	"	2,500,000	40 %	30.2 %
"	2,500,001	"	3,000,000	45 %	32.7 %
"	3,000,001	"	4,000,000	46 %	36.0 %
"	4,000,001	"	4,500,000	47 %	37.2 %
"	4,500,001	"	5,500,000	48 %	39.2 %
"	5,500,001	"	6,000,000	49 %	40.0 %
"	6,000,001	"	Upwards 10,000,000	50 %	44.0 %

Source : Grove, T.J., Direct Taxation In Iran : An Outline , Bulletin for International Fiscal Documentation, Sept. 1966, p. 379.

The General Income Tax
In 1967 Tax Law

Table (6-4)

Taxable Incomes (Thousend Rials)				Marginal Rate Of Tax %	Effective Tax Rates %
From	0	To	400	15	15
"	401	"	600	18	16
"	601	"	800	20	17
"	801	"	1000	22	18
"	1001	"	2000	24	21
"	2001	"	4000	26	23.5
"	4001	"	7000	28	25.4
"	7001	"	10000	30	26.8
"	10001	"	15000	35	29.7
"	15001	"	20000	40	32.3
"	20001	"	30000	45	36.5
"	30001	"	50000	50	41.9
"	50001	and over (100 millions)		55	48.5

Source : Gholam Reza, Hojati-Ashrafi, Collected Tax Law, Second Edition, Amir Kabir Publisher, Tehran, 1353 (1974).

The General Income Tax Rates
In 1973

Table (6-5)

	Taxable Incomes (Thousand Rials)			Marginal Tax Rates (%)	Effective Tax Rates (%)
From	0	To	400	15	15
"	401	"	600	18	16
"	601	"	800	20	17
"	801	"	1,000	22	18
"	1,001	"	2,000	24	21
"	2,001	"	4,000	26	23.5
"	4,001	"	6,000	28	25.6
"	6,001	"	9,000	30	26.6
"	9,001	"	12,000	35	28.7
"	12,001	"	15,000	40	31.0
"	15,001	"	20,000	45	34.5
"	20,001	"	30,000	50	39.7
"	30,001	"	50,000	55	45.8
"	50,001	and	Over (100 millions)	60	52.9

Source : See Table(6-4) .

Income Tax Rates For Wages And Salaries

(1967 and 1973 Tax Rates)

Table (6-6)

Taxable Incomes (Thousend Rials)				1967		1973	
				Marginal Tax Rates	Effective Tax Rates	Marginal Tax Rates	Effective Tax Rates
From	0	To	60	Exempt	-	Exempt	-
"	60	"	144	10	5.8	"	"
"	144	"	240	10	7.5	8	3.2
"	240	"	300	10	8.0	10	4.6
"	300	"	400	15	9.7	10	5.9
"	400	"	600	15	11.5	12	7.9
"	600	"	700	15	12.0	12	8.5
"	700	"	800	20	13.0	20	9.9
"	800	"	1,000	22	14.8	22	12.4

Source : See Table (6-4) .

Taxable income in agricultural activities is defined as 10 to 45 percent of the total value of annual yields which are assessed according to the method of cultivation and types of products and is valid for five years. But, exemptions and tax holidays are enormous and widespread and cover all income from agricultural activities. Apart from the tax holiday granted to those peasants who received lands under the land reform law (for five years) and landlords for cultivation of their own lands for ten years(article 103), the income generated by investment in the development of agricultural activities (article 106) and cultivation of certain agricultural products mainly industrial crops (article 107), are exempted from agricultural tax. However, an amendment in 1973 exempts income generated from all kinds of agricultural activities from income tax for 10 years (article 109). Also income generated from handicraft industries in the rural areas are exempted from income tax. General exemption is also applied to agricultural activities[20].

Professions and trade are also subject to income tax at the rates mentioned in article 134. The taxable income is defined as net profit and the acceptable costs are determined by the tax law. Apart form the general exemption and the exemption of pragraph(g) (see P 388), there is no exemption for the professions and trade.

The income derived from interest is also subject to article 134. But banks, government companies, savings banks and building societies, and co-operatives are not subject to tax on interest for they are dealt with by company tax. However, the received interest in the following case are exempted from income tax:

1- Interest paid on current and deposit accounts with Iranian banks, savings banks and building societies; this exemption does not cover the internal banks' deposits.

2- Interest paid on pension funds and staff, and worker savings funds.

3- Interest paid on land reform bonds, government bills and bonds, and over-

drafts to foreign banks by Iranian banks.

The only tax which is brought under income tax law and is not progressive relative to various income groups is property and estate tax. This tax is taken at a flat rate of 2 percent of the value of sale of the estate or property. But, the rental estates are taxed accoring to article 134[21].

Company Tax

Although the tax on companies' profits has always been considered under income tax, different tax rates have been applied and the assessment of taxable income has always been based on published accounts and legal books. The acceptable expenses and depreciation of fixed assets are also determined by tax law. After reduction of the legally acceptable costs from the total income, the rest is considered as taxable income; in other words, taxable income is defined as net profit[22].

The 1933 law treated commercial companies like individual merchants, although different progressive tax rates were applied. With respect to companies, net incomes of over 5,000 Rls. up to 25,000 Rls. were taxed at 3 percent, net incomes from 25,000 Rls. to 100,000 Rls. were taxed at 3.5 percent on the additional increment. Incomes over 100,000 Rls. were taxed at 4 percent. Another different set of tax rates were applied to those industrial and commercial companies which did not come within the definition of the Code of Commerce. Rates ranged between one and 4 percent progressively. In comparison with the tax rates imposed on individual merchants, the rate were lower for the individual up to an income of 30,000 and higher for the group between 40,000 and 100,000 [23].

Despite the number of changes in the tax law during 1933-57, companies were still not treated as a different body from individual merchants. According to the 1957 tax law, the applicable tax rates and allowances were the same as for the merchants except that an exemption of 10 percent taxable income was given to all companies and for certain specified manufacturing or

processing companies an exemption of 50 percent[24]. However, these exemption show that the industrial companies have been given tax incentives along with the development of the industrial sector.

The 1967 tax law distinguished between three types of companies, public companies, private legal bodies other than joint-stock companies and joint-stock companies. The public companies are subject to article 134 (income tax rates) without any exemption. Private legal bodies are subject to the same rate in article 134 after an excess company tax at a rate of 10 percent of their taxable incomes[25].

Joint-stock companies, after the above ten percent, are subject to the following rates of income tax. That part of their income which is to be divided among the registered shareholders will be taxed at a rate of 15 percent, that part which is allocated to the company-reserve fund at a rate of 25 percent; and for their rest of taxable income at the following rates:

Tax Rates on Joint Stock Companies

Income Group Million Rls. From	Up to	Rates Percentage
	20	25
20	40	30
40	60	35
60	80	40
80	100	45
100	200	50
200 and over		55

Under the following conditions, the undivided profits up to 20 percent of the paid capital will be subject to tax at a rate of 25 percent and in excess of that at the rates mentioed above:

1- The company's share should be registered and accepted in the stock exchange.

2- The number of shareholders must not be more than 300, and the share of any shareholders must not be more than ten percent of the total company's shares.

There are several exemptions and tax holidays both in regard to the place of the establishment and the nature of the product:

a)- Any company which has a certificat of establishment from the Ministry of Economy enjoys a tax holiday for ten years at a rate of 20 to 100 percent depending on the area and type of product. The table issued by the Ministry of Economy covers almost the whole of the country except Tehran and part of Isfahan, in particular the border areas. The table issued for types of products covers all large scale industries[26].

b)- Incomes of mines enjoy a similar tax holiday for five years.

c)- That part of taxable income which companies reserve for the expansion or completion of existing industrial units or for establishment of new units is exempted from income tax under certain conditions.

e)- 15 percent of taxable income of those companies whose shares are accepted in the stock exchange. If the offered share to the public exceeds 33 percent of the total company's share, the exemption will be extended as follows:

Rates of Tax-Exemption Granted to Companies

Share of Capital Offered to the Public		Percentage of Taxable Income
From	Up to	
Percent		
37	40	21
40	43	22
43	46	23
46	49	24
49 and over		25

Other companies under certain conditions would benefit from the above exemption (article 116)[27]. Also the total income of shareholders accruing from the sale of share in the stock exchange and transactions on government bills and bonds are exempted from income tax.

f)- The profit paid on the share of joint-stock companies is exempted from the

ten percent company tax provided that the number of shareholders is not less than 100.

g)- Incomes from the sale of cheap housing units and exports of Iranian goods, regradless of what the exporter buys, produces or explores, are exempted from tax.

The above shows the basic structure of company tax in Iran. The difference between types of companies is not only based on legal status as mentioned in the tax law, but there is also an implicit difference according to the fields of activity in the case of joint-stock companies. The tax-holidays granted to companies are applicable to the industrial sector only as the companies are required to have establishment certificates from the Ministry of Economy (see Pragraphs(a) and (g)). Other exemptions are equally applicable to all companies which fulfill the conditions imposed by the law, regardless of their type of activity whether in the industrial or service sectors. Agricultural companies are also exempted from company tax (see income tax).

Wealth Tax

There is another group of direct taxes which is not subject to income tax law. The 'other tax' group consists of inheritance tax, uncultivated land and stamp tax.

The first time a tax on inheritance was introduced was in the 1937 tax law. According to this law, the tax rates were different depending on the nearness of the recepients relationship to the deceased. The 1957 tax law replaced the former exemption limit of 25,000 Rls. with three limits; 300,000 Rls. for close relations, 50,000 for near relations and zero for distant relations[28]. In the 1967 tax law, up to 2 Million Rls. was exempted from tax ; and after the deduction of tax at a rate of ten percent, the rest was taxed according to the classes of relations at the following rates:[29]

Rates of Exemption in Inheritance Tax (1967)

Wealth-Group From Rials	Up to	Classes of Relations First % Class	Second % Class	Third % Class
	50,000	Exempted	Exempted	5 to 75
	400,000	Exempted	3 to 55	
400,000	and over	3 to 35		

In 1973, the general exemption was extended to 5 Million Rls. while rates of tax for all groups were raised as depicted in table (6-7). However, if there is an underage child or spouse among the beneficiaries, a house up to a value of 5 Million Rls. or an apartment up to a value of 6 Million Rls. these are exempted from death duties. Also, up to 25 percent of share values or capital is exempted from tax provided the shares or capital belong to those companies which are benefiting from industrial exemption[30].

In order to reduce land speculation, all uncultivated lands inside Tehran's borders and other large cities' borders are subject to annual tax at following rates:

Tax Rates on Uncultivated Lands

Total Value of Land Million Rls	Exempted Value Million Rls.	Tax Rate Percent
2	1	1
5	2	2
10	5	3

Stamp duties are imposed on all financial and commercial transactions as well as on sale transactions of properties and estates. The value of the stamp attached to each document is determined by the value and the type of transaction. The stamp revenue used to be collected by both the Department of Indirect Tax and the Department of Direct Taxes. However, up to 1966 stamp

Death- Duty- Exemption

In 1973

Table (6-7)

(100,000 Rials)

Brackets	First Class (%)	Second Class (%)	Third Class (%)
Up To 5	Exempted	25	40
5 " 7.5	"	30	45
7.5 " 10	"	35	50
10 " 20	10	40	55
20 " 30	15	45	60
30 " 40	20	50	65
40 " 60	25	55	70
60 " 80	30	60	75
80 " 100	35	65	80
100 " 200	40	70	85
200 and Over	45	75	90

Source : Rouholah Vahman, A Complete Collected Direct Tax Laws, 1978 , p.78.

revenue was mainly considered as an indirect tax, it has since been brought under the direct tax category.

In the above section we described the development and the structure of direct taxation in Iran, and now we will analyse the economic effects of such a structure and the pattern of development of the Iranian economy. There are three effects which we will consider in our analysis, the importance of the revenue aspect of direct taxation, the redistribution effects and the reallocation of resource consideration (incentive to work and investment).

6-1-2-1-1 Effects of Direct Taxes

Importance of Revenue

The development of the fiscal system in Iran shows that the political and social structure of the society has been the main determinant of the development of the fiscal structure. The position of Landlords in the heirarchy of the political structure paralysed the land tax during 1920's when the agricultural sector was producing a large share of domestic products. To avoid direct confrontation between landlords and the organization of tax administration, the land tax of 1925 was replaced by an indirect tax on marketed agricultural products in 1933. This was a still greater concession to the landlords since the tax burden could be transferred to the peasants. Although the deficiency of the tax system in administrating direct taxes may have been a short coming of the fiscal system in the early stage of development, the political power of the different interest groups has been the main obstacle to tax administration.

However, the major deficiency of the tax system during the pre-war period was the exclusion of the largest sector of the economy from direct taxation. Taxes on the agricultural sector and properties could have provided the largest source of revenue for the government, if they could have been taxed. For instance, in 1937-38, direct taxes contributed 12.2 percent to

the government revenue[31], out which only one percent belonged to the land and property taxes. In 1941-45, the share of these groups in government revenue from direct taxes was even lower i.e. 0.004 percent (table 6-8). While the largest taxable income contributed such a low share, other sources, wages and salaries, trade and industry suffered from the low taxable income. Due to the low level of income in these groups, the rate of taxes on wages and salaries and other activities such as trade and professions were low; nevertheless they accounted for almost 100 percent of government revenue from direct taxes. The low taxable income of these groups and the political power of land owners made the raising of tax rates and tax collection very difficult which resulted in the slow development of direct taxation and its low contribution to total government revenue.

After World War II there was a change in the political structure of society in favour of the national bourgeoisie which reached its peak during 1950-54. In 1943 agricultural income was included in income tax and in 1946 the government returned to the 1925 tax law with a higher index for cash liabilities, therefore, landlords and property owners came under tax perssure[32]. These groups contributed 28 percent of direct taxes or 4.5 percent of government revenue during 1951-53 (table 6-8). At the same time taxes on merchants, shopkeepers and the professions were reduced and became subject to negociation. Although the government increased its effort to utilize the potential taxable capacity by raising the tax rates in the case of landlords, this contribution was still low relative to income generated in the agricultural sector and the wealth of landlords. Altogether, direct taxes accounted for 16.4 percent of the total government revenue (excluding oil). Nevertheless, the rise in the share of the landlords' contributions shows that whenever the political power of landlords was weak, the administration of direct taxes on income from land and wealth was a less impeding factor.

Source Of Government Revenues
1320 - 1342

Table (6-8) — Million Rials

Source	1320-24	1330-32	1338-42
1- Direct Taxes			
Income Tax	463	858	
Agricultural Tax	11	237	
Property Tax	-	71	
Inheritance Tax	1	27	
Sub - Total	475	1193	4925
2- Indirect Taxes			
Gasoline Tax	138	450	
Motor Vehicle Tax	3	91	
Alcoholic Tax	88	147	
Other Excises Taxes	147	174	
Sub - total	376	862	4815
3- Government Monopolies			
Tobacco	1193	1923	4193
Opium	-	215	2
Sugar	147	238	1428
Sub - Total	1340	2376	5623
4- Customs	385	2952	10068
Total (1 + 2 + 3 + 4)	2576	7383	25431
Oil Revenue	571	-	23325
Other Revenues	380	1824	2206
Total Revenue	3527	9207	50962

Source : F. Mehr, The Present Program and Organization Of Tax Administration, CENTO, Symposium On Tax, Tehran , March 6 - 12, 1965. P. 62

By the mid 1950's, the national bourgeoisie lost ground as a political force and the situation ended in an unstable equilibrium of compromise among the components which constituted the political structure of society. Under these conditions the capitalist state suffers from a relative weakness and, at least in the short run, it goes beyond the immediate economic interest of dominant groups or classes and defends the overall economic and political interest of the classes or fractions involved. The economic policy of the government and particularly tax policy during 1957-64 in Iran was a reflection of such an unstable equilibrium of compromise. The large exemption granted in the 1957 tax law, to various groups of tax payers ranging from peasants and wage earners to landlords, merchants and industrialists indicates the liberal line of the government due to the weakness of the state. Such economic and political crises resulted in the poor performance of the fiscal system as a whole. The large tax exemption and the economic stagnation and political disturbances of 1961-64 affected direct taxes as well as the total government revenue. The rate of growth of revenue collected under direct taxation during 1958-65 declined relative to the 1952-58 period (12.4 and 27.9 percent respectively; table 6-9). In particular, the share of estate and property tax including agricultural income tax declined to 1.3 percent of direct taxes in 1965. The importance of political factors as the main determinant of the poor performance of the tax system during this period become clearer when it is recognised that oil production was back to pre-crisis level by 1958. Also, for this period, it cannot be argued that the easy availability of oil revenue could have relaxed government effort to utilize the taxable capacity of the economy. Under financial pressure during this period, the government announced the official bankrupcy of the country in 1961-62 which shows that the low level of the tax effort was largely due to the weakness of the state.

By 1965, after the land reform, the political nature of the state became clearer and the industrial bourgeoisie came under the protection of the

Annual Rates Of Growth Of Government Revenue By Different Components For 1943–75

Table (6–9) Percentage

Source	1943 – 52	1952 – 58	1958 – 65	1966 – 72	1972 – 75
Direct Taxes	10.8	20.9	13.2	25.8	57.0
Oil	–	26.1 [1]	11.4	16.2	91.3
Custom Duties	25.4	16.6	9.9	20.5	26.6
Other Indirect Taxes	9.6	21.0	15.0	7.1	18.3
Government Monopolies	5.4	9.4	6.6	2.8	44.0
Other Revenues	19.0	– 16.2	2.3	4.4	27.1
Total	11.2	27.9	12.4	20.4	73.6

Note : 1– Rate Of Growth Relative to 1943 figures.

Source : For source see table (6–8) and Back Ground Table 19

government's economic policies. These changes reduced the government's tax effort during 1967-76. On one hand the agricultural sector had been excluded from direct taxation (particularly since 1973), on the other hand a large tax concession had been granted to the industrial sector.

If the land reform had been successful, it could have resulted in the liquidization of land value and the transformation of savings from the agricultural sector to the industrial sector. In this way, the land reform could have become a substitute for the land tax. However, as we have seen in chapter (3), the land reform was not successful in generating a savings flow and it was only public savings which were transferred to landlords in order to be utilized in industrial activities. While changing the tenure system could make the extraction of surplus from the agricultural sector politically possible, the lack of investment in this sector reduced the productivity and the potential income generated from agricultural activities. Without increasing the productivity in the agricultural sector, income tax could have resulted in the super exploitation of the peasants. However, not only the income generated in the agricultural sector became excluded from tax, but, more importantly, since the land tax was the only tax imposed on wealth, with the abolition of the land tax in 1957, a large tax base has been lost which could have provided the government with a significant source of revenue in a wealthy country like Iran. At last, the importance of the agricultural sector as a potential source of government revenue to finance industrial projects came to an end.

However, along with the political stability and the rapid growth of the industrial and service sectors, the contribution of direct taxation to government revenue has risen. The changes in the structure of direct taxes during 1967-75, to some extent, had a positive effect on the share of direct taxes in government revenue. In particular the introduction of the tax on wages and salaries of government employees and the increase in the rates of income

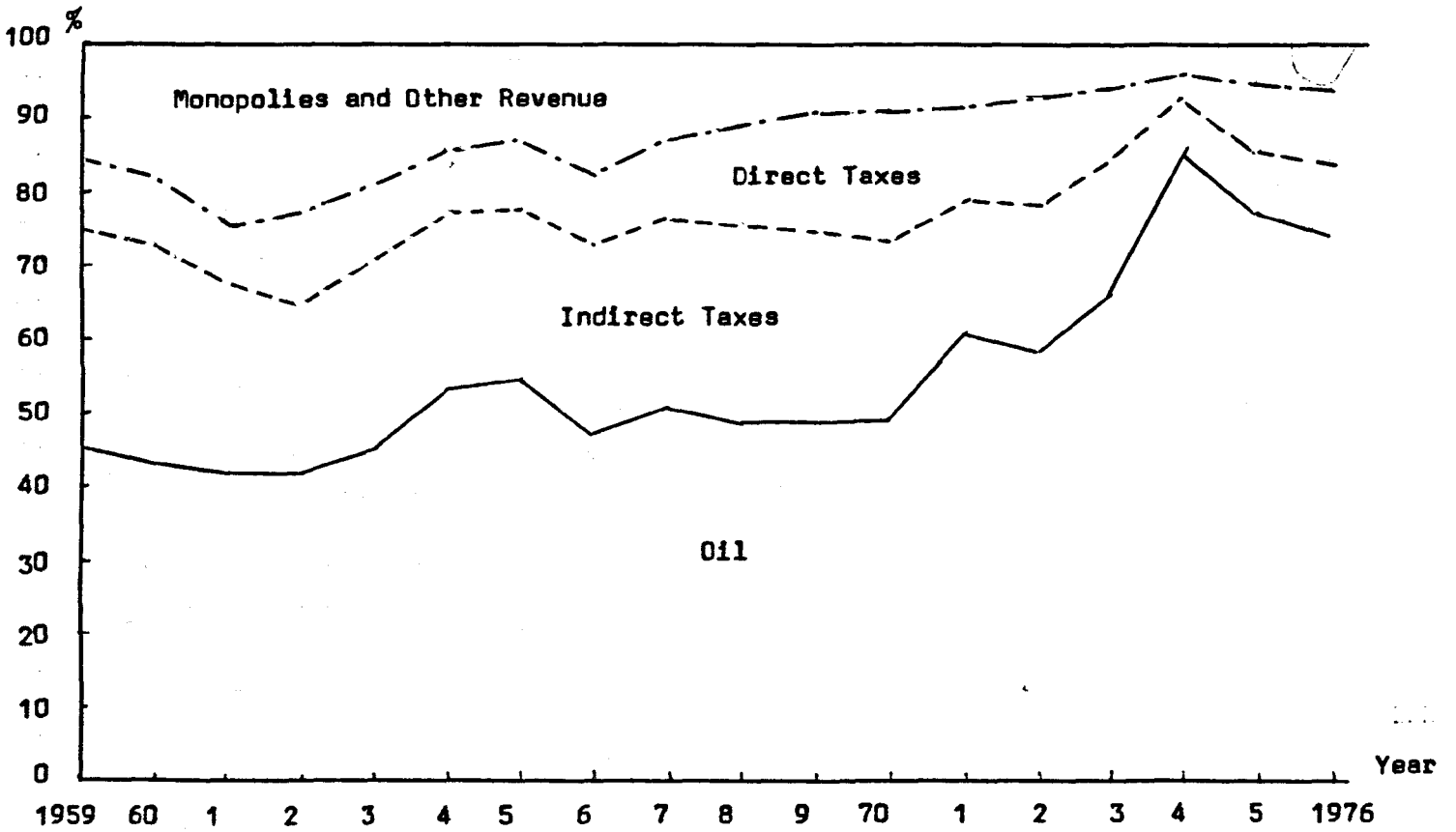
tax accompanied by the increased profits of the government agencies and private companies due to the pace of development, caused an increase in the share of income tax, and generally in the share of direct taxes. The share of direct taxes in total government revenue moved up from 9.7 percent in 1966 to 16.5 percent in 1970 (figure 6-3). Income tax makes the largest contribution to direct taxes, that is, about 83 percent on average (table 6-10). The components of income tax may be classified in order of importance during 1968-73 as follows. The tax on the profit of government agencies, whose share in the income tax shows a decreasing tendency (from 43.3 percent to 38.2 percent), occupied first place. Tax on salaries and wages with a decreasing tendency from 26.2 percent to 24.2 percent moved down to third place . The share of profit tax on private companies moved up from 20 percent to 26.2 percent (table 6-11).

Although the proportion of direct taxes declined from 16.5 percent of government revenue in 1970 to 5.2 percent in 1975, it was a result of the sharp increase in the share of oil revenue rather than a decrease in the growth of direct taxes. However, a change in the composition of direct taxes can be seen. First, a reduction in the share of wage and salary tax which was due to the introduction of a large exemption and a lowering of the tax rates at the begining of 1974. The decline is also noticeable in absolute terms. Secondly, there was a sharp increase in the share of tax on profits of government companies and agencies. Totally,although about 125 government companies operate in the agricultural, industrial and service sectors, only 50 of them were able to produce profits during the 1970-74, out of which the government's banks (particularly the central bank and the Melli Bank), National Iranian Oil Company (NIOC) and tobacco company accounted for 95 percent of the total profits and tax paid to the general budget (see table 6-12). In 1975 when the tax on profit of government companies accounted for 67.4 percent of income taxes, the income tax paid by the central bank and the NIOC accounted for 83.4

Figure (6-3)

Government Revenue By Major Components

(Share %)



Source: Back Ground Table 19

Direct Taxes By Major Compnents

Table (6-10)

Value in Billion Rls.

		1962	1968	1971	1973	1975	1976
Income Taxes		4.1	14.1	25.6	44.7	138.2	169.3
	%	(80.4)	(80.6)	(84.8)	(84.5)	(91.0)	(90.1)
Property & Estates		0.6	1.4	1.1	2.0	4.2	6.0
	%	(11.8)	(8.0)	(3.6)	(3.8)	(2.8)	(3.2)
Stamp Duties		0.4	1.1	2.1	3.7	6.3	8.8
	%	(7.8)	(6.3)	(7.0)	(7.0)	(4.1)	(4.3)
Other Direct Taxes		-	0.9	1.4	2.5	3.2	4.5
	%		(5.1)	(4.6)	(4.7)	(2.1)	(2.4)
Total Direct Taxes		5.1	17.5	30.2	52.9	151.9	187.8
	%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: BMI, Annual Report, 1965-76.

Income Taxes By Major Components

Table (6-11)

Value in Billion Rls.

	1968	1969	1970	1971	1972	1973	1974	1975	1976
Profits of Government Companies	6.2	6.6	7.9	8.7	11.4	17.1	28.8	93.2	99.4
%	(43.3)	(38.4)	(35.3)	(34.0)	(34.3)	(38.2)	(46.7)	(67.4)	(58.7)
Profits od Private Companies	2.8	3.9	6.1	6.5	9.1	11.7	16.1	20.1	29.5
%	(19.9)	(22.7)	(27.2)	(25.4)	(27.4)	(26.2)	(26.1)	(14.5)	(17.4)
Wages and Salaries	3.7	4.8	5.8	7.1	8.8	10.8	10.2	15.3	26.2
%	(26.2)	(27.9)	(25.9)	(27.7)	(26.5)	(24.2)	(16.5)	(11.1)	(15.5)
Self-employees	1.5	1.9	2.6	3.3	3.9	5.1	6.6	9.6	14.2
%	(10.6)	(11.0)	(11.6)	(12.9)	(11.7)	(11.4)	(10.7)	(6.9)	(8.4)
Total Income Taxes	14.1	17.2	22.4	25.6	33.2	44.7	61.7	138.2	169.3
%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: BMI, Annual Report, 1965-76.

Composition Of The Tax On The Government's Companies And Agencies For 1969-75

Table (6-12)

Billion Rials

		1969	1972	1975
Bank Markazi Iran (The Central Bank)		0.7	4.9	43.7
	%	(10.6)	(43.0)	(46.9)
National Iranian Oil Companies		1.1	3.3	34.0
	%	(16.7)	(29.0)	(36.5)
Public Banks		1.1	2.1	
	%	(16.7)	(18.5)	
Tobacco Company Of Iran		2.7	3.3	15.5
	%	(40.9)	(29.0)	(17.6)
Other		1.0	0.5	
	%	(15.1)	(0.5)	
Total		6.6	11.4	93.2
	%	(100.0)	(100.0)	(100.0)

Source : Budget Acts, 1969 - 75.

Interest Received By Bank Markazi Iran (The Central Bank)

Table (6-13)

Billion Rials

Received Interest	1968	1969	1970	1971	1972	1973	1974	1975
Interest Received From :								
1 Public Sector(including Treasury, Plan Organization, Government Agencies and Municipalities)	2.5	3.1	4.4	5.7	7.1	13.2	14.1	25.1
2 Government Banks	0.1	-	0.2	0.1	0.1	0.8	0.6	2.4
3 Private Banks	-	0.2	0.2	0.1	0.1	0.2	0.8	1.4
4 Rediscount	-	-	-	-	-	0.1	0.5	0.8
5 Foreign Exchange Transaction	-	-	-	-	-	-	0.2	0.5
6 Banks Abroad	0.6	0.6	0.4	0.8	2.0	3.7	38.2	35.5
Percentage 6/7	18.7	15.4	7.7	11.9	21.3	21.1	69.6	54.1
7 Total	3.2	3.9	5.2	6.7	9.3	17.0	54.9	65.7

Source : BMI, Annual Reports, 1968 - 75 .

percent of this component. However, it seems, this increase may be temporary and due to the increase in oil prices in 1973-4. This effect is quite obvious in the case of the NIOC which exports oil. For the central bank, it can be said that the increase in the foreign exchange earnings allowed the bank to expand its activities, particularly, as is shown in table (6-13), in the share of received interest from correspondent banks abroad which shot up from 3682.5 Million Rls. in 1973 to 38225.8 Million Rls. in 1974. In relative terms, it accounted for 21.6 and 69.6 percent of the total received interest by the central bank for the respective years.

The above pattern of growth of revenue shows that the high growth of company tax has been due to the effect of the increase of oil revenue on public companies' profits. Such taxes on profit with very short term effects have little economic effect from the government revenue point of view in the long run. When the share of government agencies is excluded from the total direct taxation, the direct tax ratio relative to GDP has never been more than 2 percent. Taxes on private companies, the self-employed, wages and salaries are the most important ones. However, not only are rates of tax on income relatively low, but also, the exemption and tax holiday granted to companies and interest earners have reduced the importance of direct taxation from the revenue stand point. Those companies or individuals who are entitled to a tax holiday or exemption receive their concession both under the definition of taxable income (some activities are exempted by definition) and out of taxable income, which is defined as net income.

In order to evaluate the government tax effort, apart from the tax concession, the high possibilty of tax evasion should also be considered. The latter reduces the share of taxable income as a fraction of total income generated in the economy and the former affects the actual tax payments. While it is not possible to show the extent to which tax evasion can reduce

the tax base, the gap between the actual payments and the calculated tax may demonstrate the large share of tax concessions in the Iranian tax law. A survey on tax payers in Tehran shows that the tax paid in 1970 for the five groups of income (property and estate, professions, private companies, inheritance, interest and total) accounted for only 7.7 percent of the taxable income of these groups(table 6-14). When the calculted tax according to the tax rates in article 134 is considered, the ratio was about 23 percent which shows the very low tax base relative to taxable income. The large gap between the actual and the calculated tax indicates only the large tax concession and does not reflect tax evasion.

In order to see the extent to which different sources have benefited from the tax concession, it is useful to look at the distribution of the tax base by taxable income brackets. As table (6-15) shows neither poor nor the rich are important from the potential taxable income point of view. The bulk of taxable income comes from the 400-50,000 thousand Rls. groups which accounted for 86.2 percent of the total taxable income. The middle range groups, also, accounts for 80 percent of the tax paid to the government. These groups are the major potential tax payers while they pay relatively the lowest tax rates. Only 5 percent of the taxable income of the middle income bracket is extracted as income tax, which is very low relative to the effective tax rates as appears in article 134. To see what income receivers benefit the most, table (6-16) has been arranged according to the various sources of income (excluding wages and salaries). It shows that 72.4 percent of taxable income belongs to property owners, while they contributed only 29 percent of the actual tax paid. The above indicates that the middle class families are the major source of taxable income and they also are the group which is highly protected from taxation. Among them, property and estate owners are the largest source of taxable income and also the most protected one.

Tax Burden By Income Groups

1970

Table (6-14)

Percentage

Groups of Income	Actual Tax Paid / Taxable Income (1)	Effective Tax Rates / Taxable Income (2)	Percentage (1)/(2)
Lowest	10.2	15.0	68.0
Lower Middle	4.9	15.7	31.2
Higher Middle	6.4	22.4	28.6
Highest	13.1	41.0	31.9
Total	7.7	23.0	33.4

Source : Kayanian, Amin Mahamad, An Analysis Of Income and Tax Groups, Tehran University, 1975 (1354).

Distribution Of Tax Payers, Taxable Income, Actual Tax and Tax Burdens By Income Brackets in 1970

Table (6-15)

Income Groups (Thousand Rials)		Number of Tax Payers (%)	Taxable Income (%)	Actual Tax (%)	Actual Tax / Taxable Income (%)
	0 - 40	45.9	2.5	4.1	12.4
Lowest		(64.4)	(7.4)	(9.2)	(10.2)
	- 100	18.5	4.9	5.1	7.9
	- 400	25.7	19.7	12.9	5.0
Lower Middle		(30.6)	(30.9)	(19.9)	(4.9)
	- 800	4.9	11.7	7.0	4.8
	- 2,000	3.4	17.9	11.6	5.6
Higher Middle		(4.8)	(40.2)	(33.3)	(6.4)
	- 10,000	1.4	22.3	21.7	7.5
	- 50,000	0.2	15.1	27.4	14.0
Highest		(0.2)	(21.5)	(37.6)	(13.1)
	50,000 and Over	-	6.4	10.2	12.2
Total		(100.0)	(100.0)	(100.0)	

Source : See Table (6-14)

Distribution Of Tax Payers, Taxable Income, Actual Tax Paid And Tax Burden By Occupation In 1970

Table (6-16)

Million Rials

	Number Of Tax Payers (1)	Taxable Income (2)	Actual Tax (3)	% (1)	% (2)	% (3)	Percentage (3)/(2)
Property & Estate	130442	26988	830.3	87.6	72.4	29.0	30.0
Profession	16359	2807.8	366.0	11.0	7.5	12.8	13.0
Companies	1655	6178.8	1499.4	1.1	16.6	52.4	24.3
Inheritance	354	1201.4	163.6	0.2	3.2	5.7	13.6
Total Income	109	79.6	3.9	*	0.3	0.1	4.0
Interest & Occasional	13	2.0	0.2	*	*	*	10.0
Total	148932	37275.6	2863.4	100.0	100.0	100.0	7.6

Source : See Table (6-14) .

Income Redistribution Effects

The main purpose of the fiscal system in the early phase of economic development is to finance government expenditure in whatever way possible and through the easiest tax handles available. Therefore, it is not surprising to see that the redistribution aspect of the direct taxes is being undermined. We may not need any statistical support to show the regressivity of direct taxes in Iran in the early years of the development of the fiscal system. As far as the effect of direct taxes is concerned, clearly, the land and property owners bore no tax burden during the 1930-50 period. Relatively the highest tax burdens were imposed on the professions, wage and salary earners and traders.

While during the four and half decades of the life of modern direct taxation in Iran the administration of direct taxation has developed and the importance of direct taxes in government revenue and as a means of fiscal policy has risen, no significant improvement is visible with regard to the redistributive function of direct taxation. One may even argue that direct taxation which can be used as a fiscal means of redistribution of income has accentuated the regressivity of the tax system as a whole. Although progressive tax rates have been used, the imposition of taxes appears to have no positive effects on the distribution of income. It is true that the progressive rates of tax can be interpreted as an element of redistribution of income, but two features must be present in making of direct taxes to fulfill the above function. First, the progressive tax rates should be improved along with the development of the tax system. Secondly, the progressive tax rates should be fully applied.

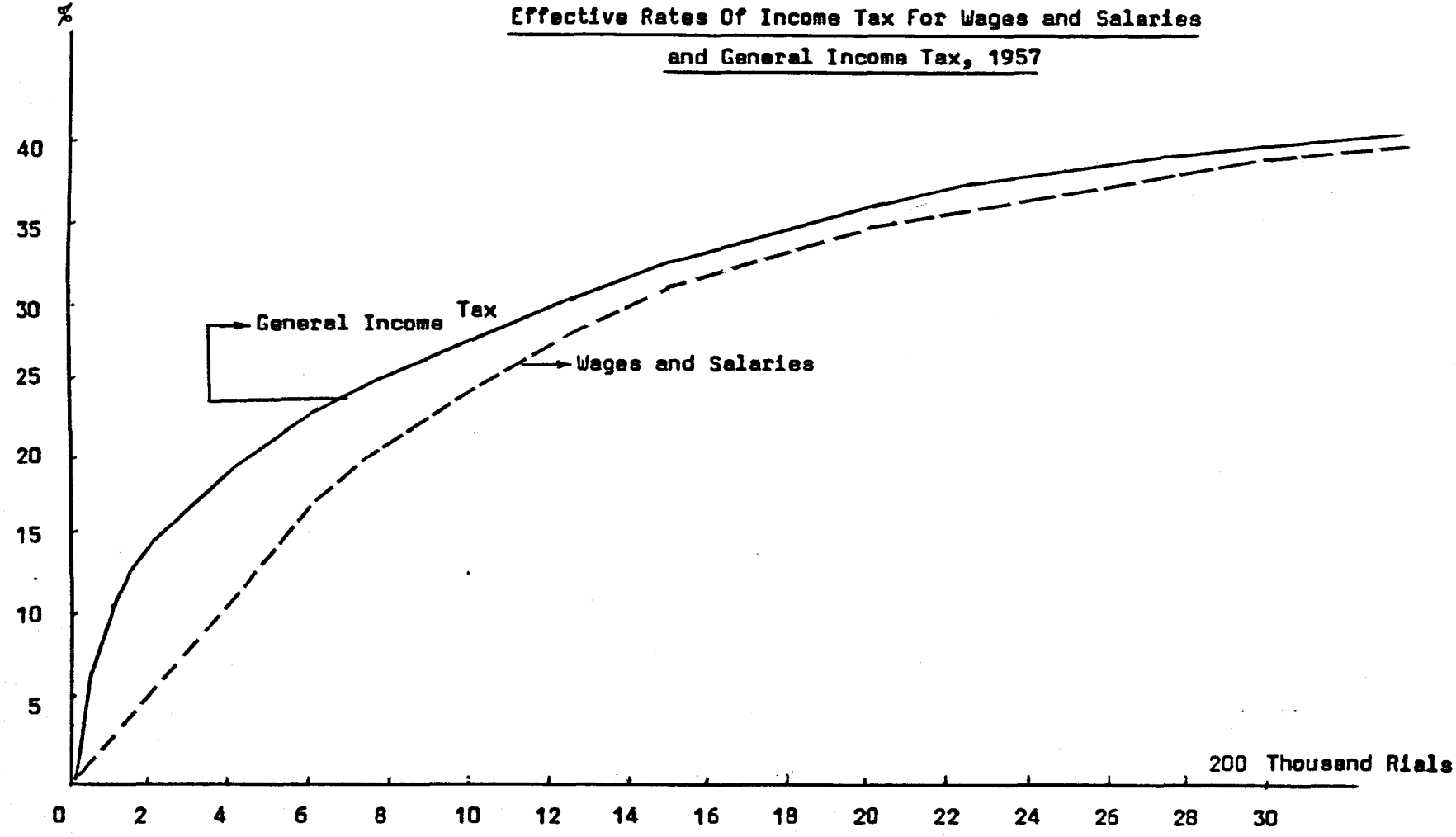
As far as the first consideration is concerned, the Iranian tax system does not show such an improvement over time. In order to evaluate the tax system in this respect we may compare the tax rates of the 1957 tax law with those of 1973. Both are progressive relative to income brackets with higher

effective rates in the case of the 1973 tax rates (figures 6-4 and 6-5). But this comparison may not be meaningful since the income brackets in 1957 and 1973 are not the same. An adjustment has been made in order to offset the effects of an increase in per capita income during the 1957-73 period. Figures (6-6 and 6-7) show the adjusted effective tax rates for 1957 and 1973. It appears that the 1973 tax rates are steeper for lower incomes, slightly lower in the middle brackets and higher at the high income level, which clearly indicates the higher burden on the low income tax payers and regressivity of the tax system in 1973 relative to 1957.

As has been explained above, the tax rates are not fully applied due to the existing concessions in the tax law which created a large gap between the calculated tax and the actual tax. Since the concessions are largely in favour of the large companies and high income brackets, the direct taxes can be regressive despite the progressive tax rates. Table (6-15) shows the taxable income, actual tax paid and actual effective tax rates or the tax burden for different income brackets in 1970. As is shown, the lowest groups suffer from a relatively higher tax burden than other income groups. The lowest group pays around 10 percent of their taxable income as income tax, while the middle groups pay around 5.5 percent of their income. Although the tax burden is slightly higher in the case of the highest groups, it is much lower than it would have been if the progressive tax rates had been fully applied (table 6-14). While the lowest groups pay around 68 percent of their tax liabilities other groups pay only 30 percent of theirs. This shows that tax concessions benefited the higher income levels and have made income tax regressive relative to income brackets. This regressivity is far more important if we consider the percentage of tax payers from each income group. 64 percent of tax payers suffer from the high burden of taxation , while a minority of 5 percent enjoys a low tax burden (table 6-15). Regressivity has little significance for tax revenue since the lowest group accounts for only

Figure (6-4)

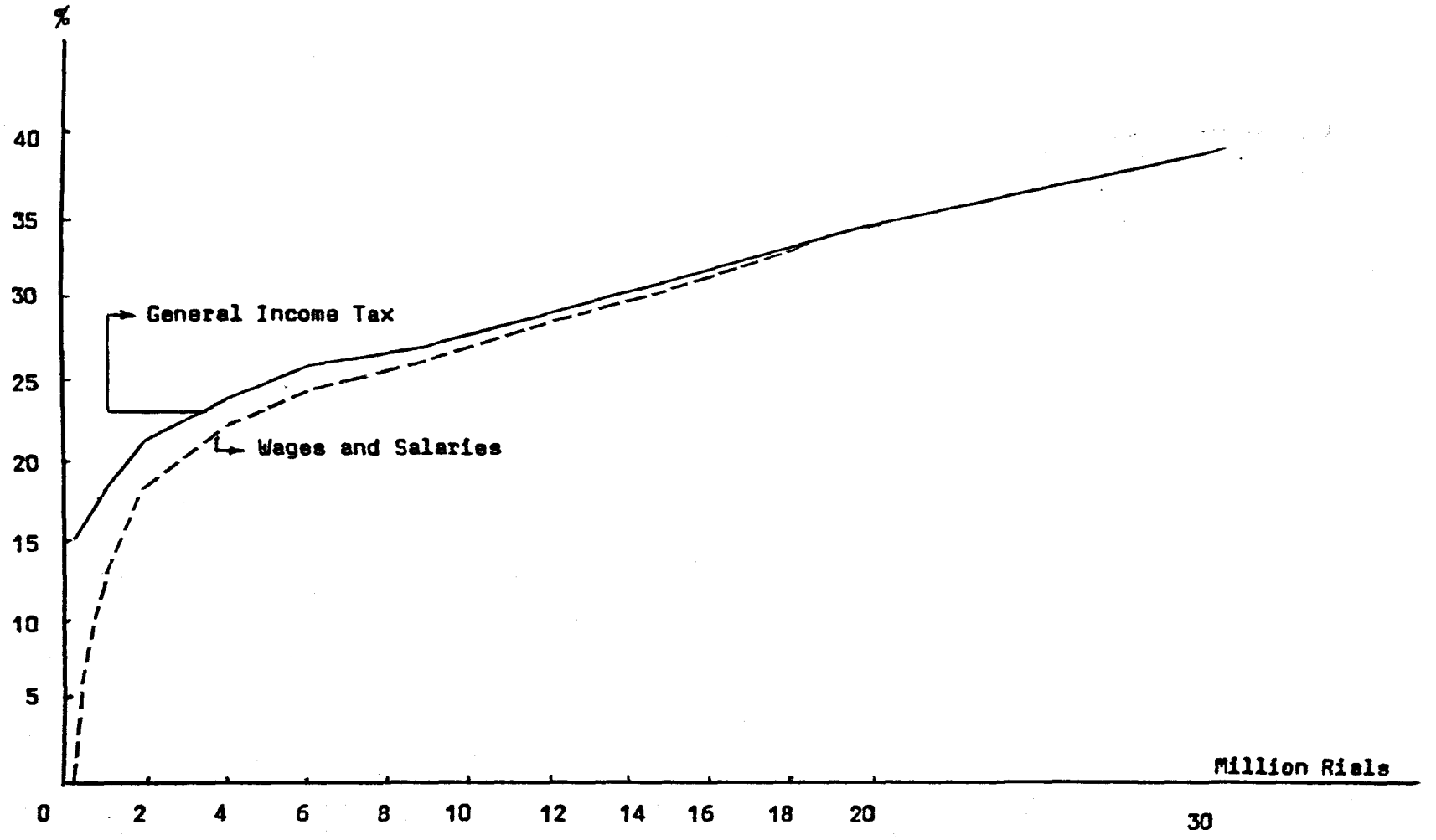
Effective Rates Of Income Tax For Wages and Salaries and General Income Tax, 1957



Source : See Table (6-3)

Figure (6-5)

Effective Rates Of Income Tax For Wages and Salaries and General Income Tax in 1973

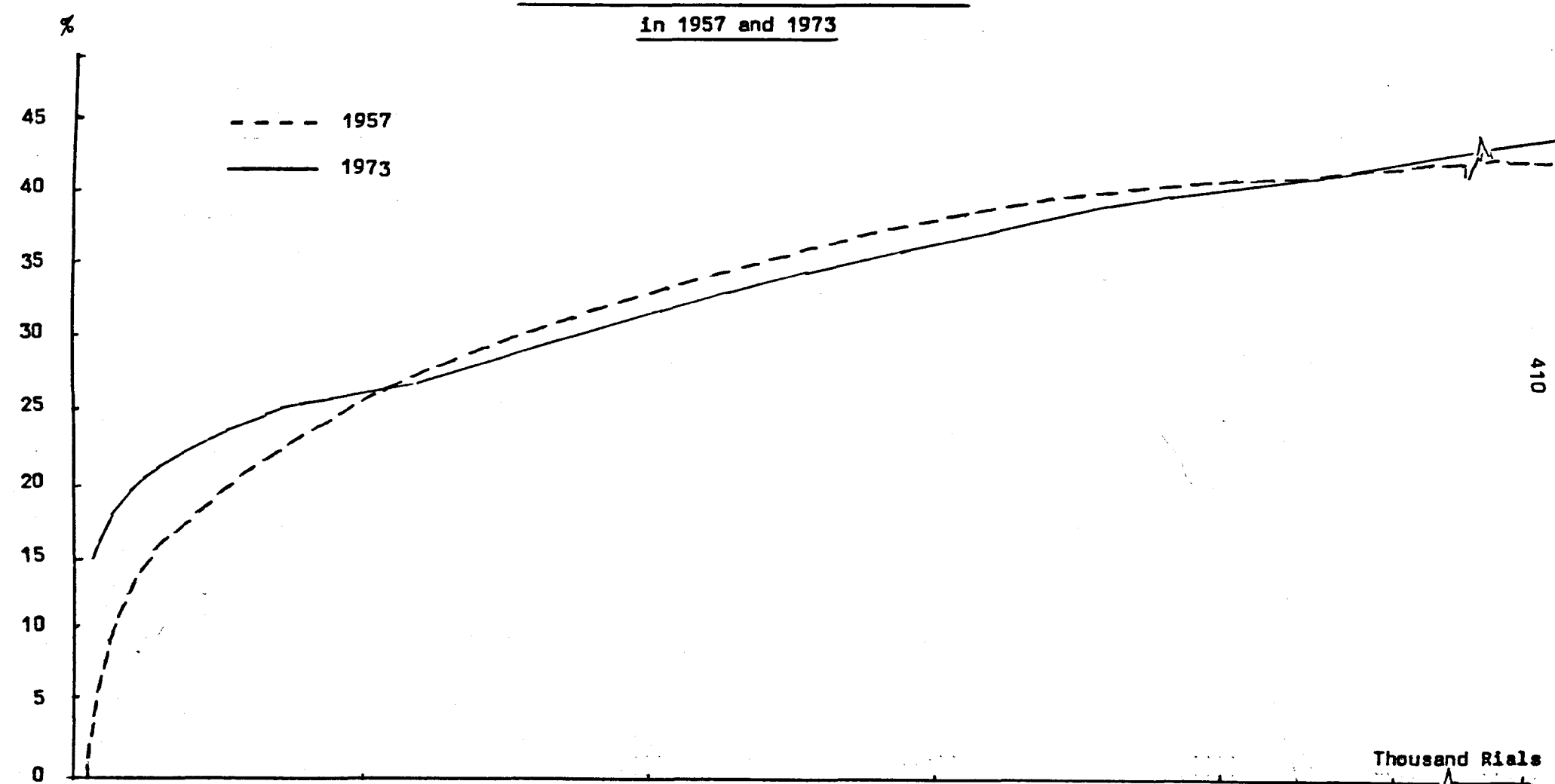


Source : See Tables (6-5) and (6-6)

Figure(6-6)

Effective Rates Of General Income Tax

in 1957 and 1973

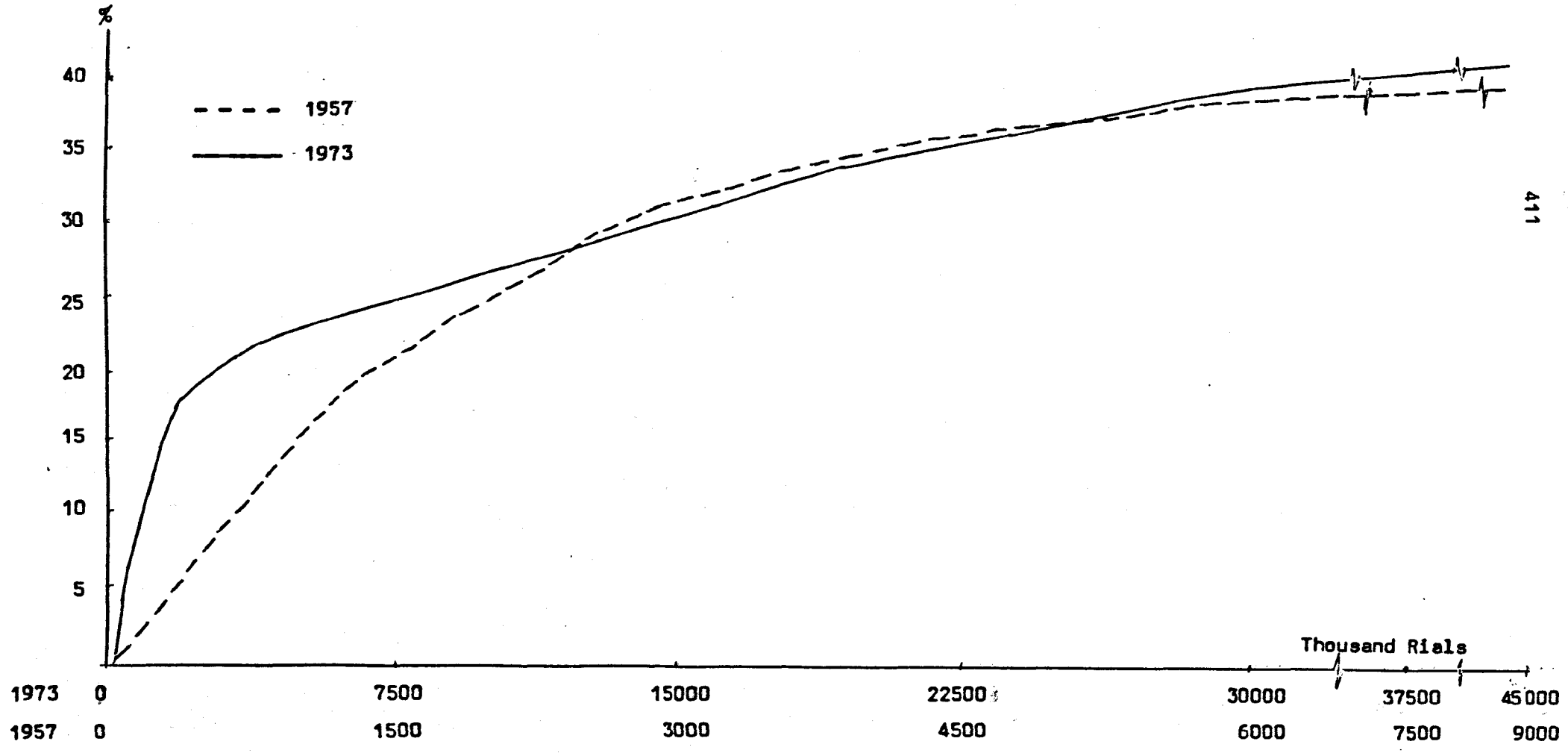


Source: See Tables(6-3) and (6-5)

Figure (6-7)

Effective Rates Of Tax On Wages and Salaries

in 1957 and 1973



Source : See Tables (6-3) and (6-6).

Tax Burdens According To Occupation And Income Brackets

In 1970

Table (6-17)

Percentage

Income Groups (Thousand Rials)		Property & Estate	Profes-sion	Companies	Inheritance	Tax On Total	Interest & Occasional	Wages & Salaries
Lowest	0 - 40	11.8	15.0	25.0	-	-	-	-
	- 100	6.7	14.8	23.8	-	-	-	5.3
Lower Middle	- 400	3.8	14.8	24.8	7.5	6.0	11.1	15.6
	- 800	2.8	15.4	25.4	3.6	1.8	-	17.3
Higher Middld	- 2,000	2.3	15.3	24.7	4.4	2.9	10.1	25.9
	- 10,000	1.8	13.3	28.6	10.4	10.0	-	44.1
Highest	- 50,000	1.5	4.4	28.7	22.8	-	-	69.7
	50,000 and Over	2.0	3.3	15.3	2.7	-	-	64.5
Total		3.0	13.0	24.3	13.6	4.0	10.0	30.3

Note : See Page (407) for the assumption.

Source : See Table (6-14) .

7 percent of taxable income, and the actual tax paid by this group cannot even offset the cost of collection, while the 5 percent of tax payers accounts for 61.7 percent of taxable income which has not been fully taxed and has reduced the tax revenue.

Not only is income tax regressive relative to income brackets, but, income receivers from different sources bear different tax burdens. The differential is not based on the difference of earned and non-earned incomes, therefore, work incentive, but is largely used as an incentive for investment.

Although in the calculation of tax liabilities a different set of tax rates and also lower rates are used for wages and salaries from that of general income tax, this difference disappears when the tax concession to other income receivers is considered. Since there is no data available for tax on wages and salaries by income levels, the effective tax rates as mentioned in the law can be used for the purpose of comparison. There is no concession for wages and salaries (apart from the general exemption, in the case of the private sector). Therefore, the effective tax rates should not be different from the actual effective rates. As table (6-17) shows except for the lowest group, the wage and salary earners bear a higher tax burden than other groups.

Table (6-16) shows that those who receive their income from rent, royalities and sale of estates bear the lowest tax burden, while company shareholders suffer from a relatively higher tax burden. The high burden in the case of companies may be misleading since a large number of agricultural and industrial companies enjoy a total tax holiday(that is about 50 percent of companies in Tehran) which is not recorded and the above figure reflects only the tax burden of those companies which are partially exempted from income tax. The difference between tax burdens shows that the professions which include a large number of small activities, bear a higher tax burden than landlords and interest earners.

When the taxable income derived from various sources is considered,

around 85 percent of income in the lowest group is derived from property and estates and only 15 percent comes from the professions (table 6-18; excluding wages and salaries). This may justify the low tax rates on the non-earned income on the grounds of equity. But, first, the large share of property and estate in the lowest group of income may be misleading since quite a large number of propert units may belong to one landlord which have been recorded under several tax liabilities in order to avoid higher taxation (the small number of taxes reported under the total tax category may be evidence of this sort of tax evasion). Secondly, the lowest groups of each source pay relatively higher taxes than high income groups of each source. The tax differential are even higher in the case of income from property and estate sources than those of the professions and companies (table 6-17). In the case of the latter group, only the high group enjoys a relatively low tax burden while other groups bear a similar tax burden which still shows the regressivity of the tax system on the grounds of equity.

Another direct tax which should be considered in the evaluation of a tax system from an equity stand point is death duties. Although death duties may not be regarded as an important sources of revenue, their application is fundamental to the redistribution of income in the long run. Particularly, in Iran where wealth is significant source of income, the inheritance tax can play an important role in reducing inequity in the society. However, the general exemption in the tax law is so large that a millionaire's son need not be bothered with the trouble of tax administration. Although the tax rates are progressive and discriminate against distant relatives, the tax rates are not high enough in the case of first group of beneficiaries to reduce the concentration of wealth in Iran. In 1970, only 13.6 percent of taxable bequests were taken as inheritance tax in Tehran.(table 6-16).

The above shows that the tax burden is very low and the distribution of the tax burden is not base on the consideration of income distribution

Percentage Of Taxable Income Derived From Different Sources In 1970

Table (6-18)

Percentage

	Income Groups (thousand rials)	Property & Estate	Profes-sion	Companies	Inheritance	Total Income	Interest & Occasional	All Sources
Lowest	0 - 40	83.2	16.5	0.3	*	*	*	100.0
	- 100	85.4	14.0	0.5	0.1	*	-	100.0
Lower Middle	- 400	90.5	7.6	1.7	0.1	*	*	100.0
	- 800	85.8	8.7	4.0	0.8	0.7	-	100.0
Higher Middle	- 2,000	82.7	7.4	7.4	1.7	0.8	*	100.0
	- 10,000	70.7	6.3	16.6	6.2	0.2	-	100.0
Highest	- 50,000	46.4	6.9	38.9	7.8	-	-	100.0
	50,000 and Over	17.6	2.5	76.3	3.6	-	-	100.0
	Total	72.4	7.5	16.6	3.2	0.3	*	100.0

Source : See Table (6-14) .

and most likely the political power of each group of tax payers determines their share in the total tax burden.

Reallocation of Resource Effects

Up to 1950, revenue raising was the main purpose of the direct taxation. There was no specified and discriminatory policy against or in favour of particular fields of activity. Nevertheless, the relatively low tax burden on land and property owners can be interpreted as a tax incentive to agricultural and wealth, and relatively penalises industrial and service activities. In paticular, there was no specific policy with regard to the development of the industrial sector. Industrial activities were treated on the same lines as commerce. The structure of the tax system was largely the reflection of the domination of the agricultural sector on the production side, and the dominance of landlords on the political structure of the society.

With the change in the balance of political powers, a change was brought about in the 1957 tax law with regard to the exemption of industrial activities from 10 percent income tax and particularly food processing industries from 50 percent. Although industrial activity was still taxed at the same rates as commerce, the above concession to the industrial sector indicates a diversion of direct taxed in Iran toward the development of the industrial sector. However, it was not until the 1966 tax law that the industrial bourgeoisie received a large concession with regard to direct taxes relative to commerce. Nevertheless, tax treatment has been different implicitly and without specified direction.

Although the government tends to specify the line of investment by issuing the list of industrial activities enjoying tax concessions (20 to 100 percent), this list covers nearlly all the large industries and it can not be effective in encouraging any particular line of investment, This indicates that the government does not aim at any particular pattern in its industrial policy. Therefore, this general tax holiday both in the agricultural

and industrial sectors would be in favour of the most profitable and short-term investments, rather than encouraging the most desirable and long-term ones. However, it seems that this concession conforms with the government policy of regional development in which a longer and higher tax holiday and tax concessions are granted for the remote areas; and whereby the centralization of industrial units in Tehran (in particular) and Isfahan are discouraged. Even in this respect, no specified policy has been pursued. The aim has largely been to discourage investment in Tehran rather than encouraging investment else where. To do this, a tax concession is also granted to those companies inside Tehran (with 100 plus employees) to move out from the city[33].

Although the 1967 tax law has encouraged the reinvestment by companies, it is limited to a few large industries capable of fulfilling the required conditions. Article 99 exempts that part of taxable income which is allocated to the reserve funds for expansion, completion and establishment of new industrial units from income tax (provided the paid capital of the company is not less than 200 Million Rls., it exports five percent of its product annually and 50 percent of the company's production is made in Iran)[34]. This article clearly shows that the government has tried to encourage the export of industrial products and strengthen the linkages in the manufacturing sector. However, the effect is bound to be limited. Apart from this concession, not only is there no consideration for reinvestment by companies, but tax rates for divided profits among registered sharholders are lower than those for reserved funds, which can be regarded as a disincentive to reinvestment.

Untile 1973, similar tax concessions existed for the agricultural sector; and large investment and higher productivity was encouraged by tax concessions on the excess income resulting from investment and productivity. Since 1973, all agricultural activities are exempted regardless of increased productivity or investment.

The above pattern shows that the government has been concerned with the

development of large capital industries. However, not only is there no consideration for the promotion of large and labour intensive industries in the form of higher tax exemptions for certain levels of employment, but there is also discrimination against medium and small scale industries. In this way the work incentive has been undermined and employment has become a matter of secondary consideration.

As the comparison between taxes on wages and salaries and the professions on the one hand, and taxes on property and estate on the other hand shows, earned income has been penalised in favour of non-earned income. This has distorted the pattern of allocation of resources. A large share of investment which could have found its way into small and medium scale industries has gone to property and estate. Therefore, it is not suprising to see that up to an income level of 10 Million Rls.per year 80 percent of income is derived from rent, royality and sale of lands(excluding wages and salaries) which reflects the importance of small and medium size investment engaged in housing and land speculation.

While the share of income derived from property and estate decreases (while mounting the scale), the share of income derived from companies' profits increases. This pattern of distribution, to some extent, is affected by differential tax concessions. The tax concessions in the case of companies, as has been explained above largely benefit large enterprises in the modern sector. The Ministry of Economy announces those industries which are not entitled to the total tax holiday or exemptions. These activities are by nature those which mostly affect the medium and small industries (see note 27). The establishment of large industries is encouraged both by the nature of activities and by encouraging joint-stock companies against other forms of companies which mainly have family foundations. Clearly, articles 80 and 116 give a high concession to the joint-stock companies . Also for the development of the stock exchange market and capital market, all transac-

tions in these markets are exempted from income tax. Article 118 allows the establishment of stock holding companies with a similar tax concession to those of joint stock companies. These articles show that the government has mainly been concerned with the development of capitalist institutions. Also, a similar object has been pursued through tax exemption for personal deposits with the banking system, which allows private savings to be mobilized through the banking system and financial institutions rather than taxation.

All these show that the government has confined its tax policy to the development of capitalist institutions and raising the degree of capitalization by encouraging large capitalist enterprises and reducing the degree of imperfection of the capital market. In this way, the government has relied on the market mechanism for reallocation of resources and distribution of income. But this cannot be interpreted as a neutral function of the capitalist state since by its intervention the state has accelerated the process of accumulation and has aggravated distribution of conditions.

6-1-2-2 Structure of Indirect Taxation In Iran

Custom Duties

Apart from oil revenue, the bulk of the Iranian government's receipts have come from indirect taxes consisting of custom duties and taxes on domestic products. The former accounts for about 73 percent of the total indirect taxes on average (table 8-19).

At the present time, custom receipts are derived from the following sources; custome tariffs (regular tariff), commercial profit taxes(especial tariff), registration fees and other duties such as storage, postage etc. However, the custom system has gradually developed over several decades. To evaluate the effects of such development, one should distinguish between those factors which largely affect the fiscal performance of the system and those

which mainly influence the protection policy, although thesre exists an inter-relationship between these two aspects.

Up to 1928, custom tariffs were levied according to the quantity and weight of goods. The tariff law of 1928 which modified the earlier system and established ad valorem duties in the majority of cases was in force until 1936 when there war a return to the specicic tariff base[35]. From 1950 to 1971, both specific and ad valorem were used as a base for custom duties[36]. During this time, there was a gradual shift toward an ad valorem base particularly in the case of durable goods, but specific tariff still accounted for a large share . In 1971 a new act was passed by which the Iranian government accepted the ad valorem tariff as a base for custom duties; the act came into force in 1973[37].

One reason for the frequent changes of choice of bases for custom duties has been the difficulty encountered in the evaluation of imported goods in the case of ad valorem tariff. Even in the 1971 act, a specific tariff is applicable in cases where the ad valorem tariff is lower than the specific one[38]. In other words, the specific tariff remains as a floor to custom duties levied on imports.

Another change can be seen in the structure of tariff with regard to their protcetive function. Government control of foreign tarde was strengthened by the Foreign Trade Monopoly Act at the begining of the 1930's. The act granted the government a total monopoly of foreign trade which could be ceded to private individuals and firms through import licenses[39]. In order to increase the flexibility of the trade policy, an additional tax which was solely deterimined by government administration was imposed on imported goods (commercial benefit tax). Nevertheless, trade policy was mainly based on import quates. Basically, the act prohibited the importation of those products which were produced domestically to meet the national demand, and imports were only allowed for the excess demand over domestically supplied goods. For the pro-

motion of exports, the imports of necessary raw materials were also considered in the quota list. Although a large share of the government control of foreign trade was imposed through a quota and tariff system, still the import of basic goods such as sugar, tea, cotton and a few more remained in the hands of the government.

The government trade policy after World War II was on similar lines to that of the pre-war system with minor exceptions. The government monopoly was reduced to tea only and the importation of other goods was ceded to the private sector. This liberal policy which caused a higher participation by the private sector called for tighter restrictive measures in order to protect the domestic economy.

In 1958, the government introduced a general economic policy for the protection of infant industries and promoting non-oil exports which led to the following guide lines in the case of foreign trade poilcy during the 1960's and 1970's:[40]

a)- Custom tariffs to remain more or less unchanged.

b)- In order to provide necessary protection to the infant industries and other products whose production is sufficient to meet the internal demand, either imports of similar goods or manufacture to be completely prohibited, or a high commercial tax to be levied on the imports.

c)- No duties or taxes to be charged on capital goods.

d)- A nominal tax to be levied for fiscal purposes on raw material and intermediate products which are considered essential for industries and other productive activities.

e)- Imports of non-essential goods to be discouraged by means of a heavy commercial profit tax.

f)- No duties charged against exports.

Although the structure of trade policy since 1958 has been more or less similar to that of the post-war period, a greater emphasis has been placed

on tariffs than in the previous decade. But, still the quantitative restrictions play an important role. Moreover, in 1965 an excess tax at a rate of 2 percent in the form of registration fees was introduced (although refundable). It was made unrefundable in 1967 and by 1969 the rate was raised to 4 percent and in 1971 to 5.5 percent[41]. However, the sharp increase in prices during 1973-75 led the government to reduce the tax on imports in order to combat inflationary pressures. In 1973, the government waived import registration fees on 16 items of intermediate goods and commercial profit tax in the case of certain imports. In 1974, the exemption of registration fees extended to the whole range of commodities and the rate was reduced to 1 percent. The commercial profit tax imposed on 216 items of various commodities ranging from food stuffs to capital goods was either reduced or entirely abolished, and 150 items of intermediate and capital goods were exempted from commercial profit tax. The ban on 29 items was lifted and the importation of another 17 items which were banned became subject to permission[42]. These show that during 1973-76, under inflationary pressure the government has diverged from its established 1958 guide line in order to fulfill another function that is combating inflationary pressures.

Other Indirect Taxes

For a long time internal indirect taxes in Iran were comprised mainly of a tax on animals slaughtered in towns and cities, and excise duty on alcoholic drink and kesorene and vehicle registration[43]. Since 1960, taxes on fuel have accounted for about 70 percent of the 'other indirect taxes'. Other components including stamp duties, taxes on beverages and alcoholic drinks, taxes on domestically produced vehicles and records (since 1966) have accounted for about 30 percent (table 6-19). The latter group that is vehicles and record taxes has been rising faster than other components. Although from the mid 1960's stamp duties have been collected in the form of direct taxes, still 'other indirect taxes' have kept their share in the government revenue.

Indirect Taxes By Major Components
1962 - 76

Table (6-19)

Billion Rials

	1962	1966	1973	1975	1976
Custom Duties	8.7	16.2	45.7	92.7	121.6
%	(75.0)	(69.2)	(75.9)	(77.9)	(78.9)
Fuel	2.3	5.1	10.2	17.7	21.7
	(19.8)	(21.8)	(16.9)	(14.9)	(14.1)
Alcohol & Beverages Sale Taxes	0.5	1.0	1.9	3.0	3.8
%	(4.3)	(4.3)	(3.2)	(2.5)	(2.5)
Other Taxes [1]	0.1 [2]	1.1 [3]	2.4	5.6	7.0
%	(0.9)	(4.7)	(4.0)	(4.7)	(4.5)
Total Indirect Taxes	11.6	23.4	60.2	119.0	154.1
%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Note: 1- Other taxes include mainly tax on automobile; up to 1968 Stamp tax was included.
2- Excludes 0.7 billion rials the difference between the buying and selling rate of foreign exchange.
3- Excluding 1.3 billion rials the difference between buying and selling rate of foreign exchange.

Source : BMI, Annual Reports, 1965 - 76.

Composition Of Imports
1959-75

Table (6-20)

Percentage

Product Group	1959	1966	1969	1972	1975
Intermediate Goods	49.2	57.9	64.0	62.1	53.1
Capital Goods	20.6	27.1	25.1	25.0	29.8
Consumer Goods	30.2	15.0	10.9	12.9	17.1
Total	100.0	100.0	100.0	100.0	100.0

Source : BMI, Annual Reports, 1970, 1973, and 1975.

6-1-2-2-1 Effects of Indirect Taxation

Importance of Revenue

Indirect taxation has always been one of the most important sources of government revenue. Its importance in the early phase of development of the fiscal system can be attributed to the administrative easiness and political readiness to impose such taxes. A large share of indirect taxes come from custom duties. Since the revenue from this source accounts for a alrge share of government revenue, the government has always been concerned about the stability of its revenue from custom duties. It has tried to minimize the fluctuation of revenue from this source particularly before 1970. Generally, the custom revenue has been affected by four factors, the choice of base for imposing custom duties i.e. the specific tariff versus ad valorem, the choice of trade policy i.e. quotas versus tariffs, changes in taxable imports and foreign exchange constraint. With regard to the first two factors, the Iranian government has relied on those choices which minimize the fluctuation of revenue from custom duties since it is dependent on such revenue for financing its expenditure. The third factor changes as a consequence of the development of the industrial sector, and the fourth factor is the main determinant of the magnitude of taxable imports. The government has to elaborate on all the above factors in order to maximize its revenue and minimize the fluctuation of custom revenue.

Since the government has been dependent on custom revenue to finance its expenditure, from the begining it has chosen the specific tariff system which has still remained as a floor to government revenue from custom duties. Since in the case of specific tariffs, lump sum tax is imposed on the quantity and weight of goods and it is very likely that the fluctuation in quantity and weight of imports would be narrower than that of the value of imports, the specific tariff can minimize the fluctuation of revenue. But,

it is very inflexible relative to price changes and value particularly in a growing economy. For instance, in the pre-war period, whenever government revenue from custom duties was rising, it was due to the reliance on the ad valorem rather than the specific tariff. During 1928-37, government revenue from custom duties rose from 18 Million Rls. to 66 Million Rls. This also shows an increase relative to the value of foreign trade from 15 percent to 40 percent in the same period. In 1936 when the government returned to the specific tariff, the custom revenue did not increase even in absolute terms but it created a floor to government revenue. During 1941-46 when inflationary pressure was high, due to the inflexibility of the specific tariff system relative to the rising of prices, the government revenue from custom duties not only did not improve, but also its share relative to the value of foreign trade declined very rapidly from 42 percent to 19 percent[44].

However, the inflexibility of the specific tariff was not the only factor in the poor performance of custom duties. The custom revenue is very dependent on the magnitude of taxable imports and price and income elasticity of demand for imports. Up to 1950 a considerable share of custom revenue came from three basic commodities sugar, tea and cotton. For instance in 1941, the first two imports accounted for 57.7 percent of total custom revenue and in 1947 the three imports accounted for 37 percent of the total[45]. Taxes on these necessities covers that fraction of community's consumption which is income inelastic, demand for which does not increase along with the rising of income per capita. Therefore, with the improvement of per capita income, this fraction will decline relative to income and thereby also the share of government revenue relative to the national income. Also, with the gradual development of the industrial sector which created a change in the pattern of imports by reducing the share of consumer goods, the share of taxable imports will decline. Moreover, a large share of foreign exchange will be spent on the importation of capital and intermediate goods which will narrow the avail-

ability of foreign exchange for consumer goods imports. This consideration of the foreign exchange constraint can be deduced from the adoption of the quota system (by which foreign exchange control is earier) rather than tariffs.

However, during 1946-50, the government was still able to increase its revenue from custom duties by imposing an excess surtax and registration fee for revenue purposes. Nevertheless, the increasing of tax rates without making the duty system income elastic would not create the necessary flexibility and its effects are bound to be limited and for a short period. The above constraining factors(such as foreign exchange shortage, the change in the pattern of imports and income elasticity of demand)would limit the growth of custom revenue in the process of economic development. In particular, the first two factors affected the growth of revenue during the 1950's and 1960's. During 1951-4 the oil revenue was cut to zero and the political crisis of 1950's paralysed the government attempts to obtain foreign loans[46]. These factors reduced the annual growth rate of custom revenue to 16.6 percent for the 1951-58 period (compared with 30 percent during 1945-49; see table 6-9).

Despite the rising of oil revenue since 1957, the structural change in the pattern of imports which has been brought about by the development of industrial sector, reduced the share of taxble imports in the total imports. Since a large proportion of custom revenue is derived from importation of consumer goods, the share of this group in the total imports and the change of tax rates will determine the growth of custom revenue. The low level of tax rates in the 1960's and the decreasing share of consumer goods in the total imports (from 30.2 percent 1959 to 10.9 percent in 1969, see table 6-20) may explain the low annual rate of growth for custom revenue during 1958-65, that is about 8.3 percent (table 6-9). The improvement of custom revenue during 1965-72 was due to the introduction of an excess tax in the form of registration fee. Since it was levied on all private imports it became an important source of revenue for the government. Also, the raising of tax

rates was quite significant and this created an annual growth rate of approximately 20.5 percent for custom revenue during 1965-72 (table 6-9). After the rising of oil revenue in 1973, inflationary pressure called for a change in the government's policy with regard to foreign trade. In order to combat inflation, tax rates on a large range of commodities were lowered and quantitative restrictions were lifted from some others (see p422). In this way, by taking more liberal measures, the annual growth rate of custom revenue moved up to 26.6 percent during 1972-75. Thanks to the availability of foreign exchange, the increase in the import of consumer goods could offset the loss of revenue due to the decrease in the tax rates.

However, the above pattern of custom revenue shows that the government has always been concerned about the fiscal aspect of custom policy. Generally, in making trade poilcy, the government has had three considerations in mind, protection, revenue and foreign exchange bottleneck. Whenever, the quantitative restrictions and the foreign exchange constraint (as a bottleneck to the application of tariff policy) could have limited government revenue from customs, the government has reduced the effect by increasing the tax rates on the whole ranges of commodities. The raising of tax rates may be a short-run solution to government revenue. But, in the long run, the government revenue from custom duties is bound to be limited due to the declinig of taxable imports and foreign exchange constraints. While the share of consumer goods imports in the total imports has substantially declined, a large share of taxable goods has been domestically produced. As we have shown, the taxable capacity, particularly private consumption, is very large and therefore, the taxing of domestic consumption should become a substitute to the custom duties and offset the loss of custom revenue. Despite the structural changes in the pattern of imports, domestic products and private consumption, no change in the structure of indircet taxation can be seen. No sale tax is charged against luxury and consumer durable goods and the indirect taxes on domestic products

cover less than one percent of total national production. Since a large share of the upper and middle classes' income is spent on luxury and consumer durable goods, this exclusion has left a large taxable base unutilized[47]. Despite the easiness of tax administration in the case of indirect taxes, the government is still reluctant to use sale taxes to reduce the conspicuous consumption and finance its productive investment through taxation. This reflects the political nature of the state which supports the dominant classes through its economic policy.

Tax Burden

It is considered that any tax system which relies heavily on indirect taxes is very likely to be regressive with regard to the distribution of income. The main reason is that since the incidence of indirect taxes is directly on the consumer regadless of his income, it will therefore impose a higher tax burden on the people of lower income groups. However, it is possible to make a progressive indirect tax system by taxing those products which are largely consumed by upper income groups or generally considered as non-essential such as cigaretts, alcoholic drinks and so on.

In Iran due to the importance of revenue consideration and the political impotence of the majority, the government for a long time relied on taxing some of the necessities with low price-elasticity and very few substitutes (sugar, tea and cotton). This granted the government a stable source of revenue, but the tax burden was very heavy on the low income group for whom these necessities accounted for a large share of income[48]. Despite the increasing of government revenue from other sources, these imports were taxed even during the 1970's. In the later periods, revenue from these few products may not have been important and such taxes were unnecessary. This shows that the government has not been concerned with the incidence of taxation and if a regressive tax is traditionally accepted, the government will not consider its tax burden even if it may not have any revenue importance. While the

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government does not consider simple cases, it may well do so for complicated matters. In particular, government protection policy can create regressive effects, if it causes an increase in the prices of commodities to consumers. It is true that the development of the industrial sector in developing countries may need some sacrifices from consumers buying goods at higher prices than those on the world market. But, the government has to minimize such sacrifices by bringing the industrial sector to a competitive position. As we have explained in chapter 4, the government protection has created a large tariff redundancy and has also accentuated the existing monopolistic conditions in the industrial sector. In such a situation, the sacrifice to the consumer is higher than what may be considered as acceptable for economic development.

However, more important than all is that the government has not been concerned about taxing domestic products. Along with the development of the industrial and service sectors, a large range of industrial goods or services have been produced domestically which are mainly consumed by the middle and upper classes. Not taxing these products is effectively an exemption to these groups. This may well be due to the political power of the middle and upper classes in the political structure of the society.

Reallocation-resource Effects

The main reallocation of resource effects arises from the protective impact of custom duties. The government protection policy has mainly been in favour of the development of the industrial sector by penalizing the imports of consumer goods. Such protection may attract capital and human resources to the growing import substitution industries. Therefore, it can discriminate against the investment in the agricultural and export sectors. While the agricultural sector has been suffering from the lack of necessary investment and price protection (see chapter 3), the highly protected industrial sector may have accentuated the problem. In particular agricultural products have always been imported free of custom duties. This discrimination in govern-

ment policy against the agricultural sector has made this sector less attractive to investors. Although the government has considered the importance of export promotion, with regard to industrial products, as we have explained in chapter (4), such protection has little effect due to the monopolistic conditions dominating the Iranian industrial sector.

Since the custom duties on different commodities are very different, these cause a reallocation of resources toward more protected industries. While the consumer goods are the first to be taxed, there is a large tendency to invest in such industries. Within this group, as luxury imports are heavily taxed, these industries may absorb an important share of investment. However, with the change in government policy and the increase in the protection of capital and intermediate goods, higher investment has shifted toward the development of these sectors. These reallocation effects of custom duties have come as a conseqence of the government's delibrate policy of development of the industrial sector (see chapter 4 for the effects of protection policy). But, the government has limited the usage of indirect taxation to the protection of the domestic market for investors rather than directing the investment toward specific fields of industry. Therefore, the distortion created by the government custom policy has not been corrected by futher usage of indirect taxes on domestic products. This is particularly important, if we recognise that indirect taxes have an important reallocation effect[49]. The government could have tailored its indirect tax policy to penalize investment in luxury products and unproductive investment and thereby correct the distortion created by the custom policy.

6-1-2-3 The Overall Effects of Tax Efforts

While the taxable capacity of the economy has been expanded along with the development of industrial and service sectors as well as the rising of consumption, the government tax efforts have been very limited. Basically,

the government's tax efforts have been hindered by the mobilizing of taxable income and problems of tax handles. But the causes have been quite different in the case of the pre-war period or even until 1960 from those of the 1960-76 period. The economic structure of society was more important in the former than in the latter. While a significant change in the economic structure with regard to the degree of monetization and development of the industrial sector can be seen, the fiscal structure shows a relatively slower change due to political factors. Although the structure of the economy allows a higher tax base and introduction of new tax handles, no such effort has been made by the government. The government has still relied on custom duties to raise the necessary revenue. While the structural change in the composition of imports has imposed a sever limitation on the magnitude of custom revenue, the rising of oil revenue has created positive but short-term effects on the government revenue from custom duties. Also, more or less similar effects arise from other sources as a repercussion to the expansion of government expenditure. However, all these effects are short-term and cannot be regarded as improvements in the flexibility of the Iranian tax system.

In the long run, the performance of the fiscal system is highly dependent on the structural changes in the political determinants of the tax structure which allows the introduction of new tax handles and mobilization of taxable income. At the time when the landlords dominated the political structure of society, the largest share of taxable income was excluded from taxation. At present time, while the middle and upper income groups provide a substantially large taxable income, the enormous tax concessions to these groups has left an important source of revenue untaxed. Nor has indirect taxation been able to utilise the large taxable consumption of these groups. The above structure indicates that the Iranian government has supported the dominant classes of the society through its fiscal system.

While the Iranian economy as a whole is undertaxed, a large burden of

taxation has been imposed on the low income groups. This arises from the nature of the Iranian tax system in which the redistribution consideration has been ignored. The redistributive effects of the system largely come as a by product of revenue raising. Not only has the incidence of direct and indirect taxes been heavier on the low income groups, but also, the non-existence of indirect taxes on luxury and semi-luxury products can be considered as a further concession to the middle and upper classes.

The regressive nature of the Iranian tax system has been doubled by the reallocation effects of the system. On the one hand, through the custom policy, the government has encouraged investment in the ISI and has made the agricultural sector less attractive to investors. A large share of investment has been devoted to the development of luxury and semi-luxury industries. Moreover, the indirect taxes on domestic products have not been used to reduce the distortion created by the custom duties. On the other hand, capital intensity has been encouraged through enormous concessions in direct taxation. The situation is accentuated by further tax exemption to interest earners and investors in the capital market. Similarly other non-earned income(property and estate owners) has been less affected by direct taxes while earned income (wage and salary earners as well as the professions) has been discouraged.

Altogether, government tax policy does not have a specific line. Investment has not been directed to particular fields of industry. The government has limited its tax policy to the protection of the domestic market from foreign competitors, encouraging investment by cheapening capital relative to labour, and raising the degree of capitalization by inducing domestic savings and the capital market. These left the further reallocation of resources to be carried out by the market mechanism whose distortion has already created misallocation of resources and maldistribution of income. In other words, the government has accentuated the existing distortion of the Iranian economy.

However, while due to the nature of the state, the Iranian economy has

remained undertaxed, the rising of government expenditure has widened the gap between expenditure and revenue. To bridge the gap, the government has resorted to an alternative channel of financing, that is deficit financing, whenever it has not been able to raise higher revenue from the oil sector.

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Chapter Seven
7 Deficit Financing and Its Effects In Iran

7-1 The Importance of Deficit Financing In Iran

As we have seen the stages of development, political and institutional factors, can hamper the development of the tax structure. This handicap of the tax system with low income elasticity may retard government expenditure, demand for which is determined by the social and economic needs of the country. Fiscal policy with the aim of full utilization of the economic capacity of the economy responds to these needs. Since Iran like any other developing country has not reached its taxable capacity, the process of increasing tax revenue as a proportion of income is necessarily a slow one and taxation cannot be reied on as an adequate supplement to volutary saving. The low tax ratio may result in the underutilization of economic resources, if a balanced budget is to be maintained. Thus, it is the social and economic necessity of government expenditure and the low level of taxation which explains the importance of an unbalanced budget and calls for deficit financing, if fiscal policy is used to maintain full employment.

Distinguishing between current and development expenditures, the latter has largely been financed through internal and external borrowing. Up to 1973, the Iranian government had been running a deficit which accounted for 40 percent of the development expenditure on average. The deficit reached around 60 percent of the development budget during 1967-70. However, since 1974, with the sharp increase in oil revenue the Iranian government has been faced with a budgetary surplus. It seems at least in a short-run, financing may not be a problem and revenue constraint cannot be an obstacle to the growth of public expenditure in Iran. But as is shown in table (7-1) the surplus fell drastically from 140 Billion Rls. in 1974 to 12.7 percent in 1975 and became a deficit in 1976 (48.1 Billion Rls.). With the very slow

Government Savings and Deficit Financing

Table (7-1)

Billion Rials

	1962	1964	1967	1970	1972	1973	1974	1975	1976
Revenue	47.6	69.1	107.3	171.4	302.1	464.8	1394.4	1582.1	1743.9
Current Expenditure	42.9	53.0	82.1	134.4	227.3	316.8	727.8	929.3	1059.8
Saving	4.7	16.1	25.2	37.0	74.8	148.0	666.6	652.8	684.1
Capital Expenditure [1]	7.2	27.2	54.0	97.9	131.8	161.2	348.7	526.8	629.1
%	(34.7)	(40.8)	(53.3)	(62.2)	(43.2)				
Other Expenses With Special Permission	-	-	-	-	-	-	177.9	113.3	103.1
Deficit (-) or Surplus (+)	- 2.5	- 11.1	- 28.8	- 60.9	- 57.0	- 13.2	+ 140.0	+ 12.7	- 48.1

Note : 1- Percentage shows the share of deficit in capital expenditure.

Source : BMI , Annual Reports, 1965 - 76 .

growth of oil revenue and the rapid increase of government expenditure, this trend will continue, and the Iranian government will be seriously confronted with its traditional problem of deficit financing. Therefore, this problem is still a current one and its effects should be fully understood.

In order to evaluate the effect of deficit financing, the importance of different sources of deficit financing should be recognised, since each source creates different effects on the economy. When deficit finance by source is considered, on average, external sources appears as important as internal sources. The fluctuation of foreign loans has been dependent on the soundness of economic performance as a factor in the attraction of foreign loans and the availability of foreign exchange through oil revenue. For instance, during 1963-65 at a time of economic crisis and political disturbances, the percentage of foreign loans in the total deficit declined from 72 percent in 1962 to 1.3 percent in 1965. During 1966-71, the percentage share rapidly increased to 47; and in 1973 the increase in the oil revenue allowed Iran to become a net exporter of capital during 1973-75 (table 7-2).

The internal loans are comprised of the utilization of the banking system and the utilization of the sale of treasury bills and bonds. Both factors in the Iranian economy may be interpreted as printing money. The banking system makes the loans and also purchases a large share of treasury bonds and bills. Loans which accounts for around 75 percent of internal sources of financing are made largely by the central bank and only 25 percent is obtained through sale of treasury bonds. The distribution of the sold treasury bills and bonds shows that about 75 percent of bonds is purchased by the banking system of which the central bank is the bigest bond holder (table 7-3). This pattern explains the existence of a large amount of the government debt to the central bank on essentially open book credit. Also, since the money and capital markets are undeveloped, the central bank's discount window will remain the only channel which is accessible to the commercial banks, and the

Source Of Government Deficit - Finance [1]

Table (7-2)

Billion Rials

	1962	1963	1965	1966	1968	1971	1972	1973	1974	1975	1976
Net Utilization Of Banking System	0.7	4.4	6.1	5.5	11.1	1.8	41.5	53.8	-7.2	-10.0	233.3
Net Utilization Of Sale of Treasury Bill	-	-	2.0	5.4	7.7	14.3	4.8	4.7			
Total Internal Sources [1]	0.7	4.4	8.1	10.9	18.8	16.1	46.3	58.5	-7.2	-10.0	23.3
%	(28.0)	(80.0)	(98.7)	(72.9)	(45.8)	(51.8)	(81.2)	-	-	-	(48.4)
Net Utilization Of Foreign Loans	1.8	1.1	0.1	2.5	22.5	15.0	10.7	-1.9	-51.3	-14.0	8.6
Net Utilization Of Consirtium Advances and Loans	-	-	-	-	-	-	-	-	-	-	-
Total Foreign Sources [1]	1.8	1.1	0.1	2.5	22.5	15.0	10.7	-1.9	-51.3	-14.0	8.6
%	(72.0)	(20.0)	(1.3)	(27.1)	(54.2)	(48.2)	(18.8)	-	-	-	(17.9)
Net Utilization Of Other Sources	-	-	-0.8	-4.2	- 0.2	-5.0	-	-	+77.4	+177.7	+114.0
Aid & Investment Abroad	-	-	-	-	-	-	-	-0.8	-158.9	-166.4	-97.8
Surplus Transfered To Next Year	-	-	-	-	-	-	-	-42.6	-	-	-

Note : 1- Percentage share indicates the ratio of sources of finance relative to the total deficit.

Source : BMI , Annual Reports, 1965 - 76 .

Sale Of Government Bonds and Treasury Bills

Table (7-3)

Billion Rials

		1963	1965	1968	1970	1972	1973	1974	1975	1976
Banking System [1]		0.7	1.9	12.2	23.4	65.9	150.9	146.8	237.9	344.8
	%	(40.8)	(62.9)	(44.5)	(82.6)	(71.5)	(82.0)	(80.7)	(85.0)	(87.3)
Bank Markazi Iran (The Central Bank)			0.6	8.0	17.5	39.1	109.0	34.1	63.2	79.3
	%		(19.9)	(29.2)	(45.6)	(42.4)	(59.2)	(18.7)	(22.5)	(20.1)
Government Banks			1.3	4.2	4.2	18.6	20.3	63.1	79.4	125.6
	%				(11.0)					
Private Banks					1.7	8.2	21.6	49.6	95.3	139.9
	%				(4.4)					
Non - Banking Sector :		1.1	1.1	15.2	14.9	26.3	33.2	35.1	42.0	50.3
Individuals					5.8	9.5	10.3	9.5	11.3	13.2
Private Institutions					4.2	9.7	10.6	9.3	15.0	15.7
Government Institutions					4.9	7.1	12.3	16.3	15.7	21.4
Total		1.8	3.0	27.4	38.3	92.2	184.1	181.9	279.9	395.1

Note :1- Percenateg share shows the share of banking system in the total.

Source : BMI , Annual Reports, 1965 - 76.

treasury bills and bonds held with the banking system can easily be discounted with the central bank. Therefore, not only can the sale of treasury bonds and bills not be regarded as a means of mobilizing of voluntary savings by the government, but also, to some extent, along with the credit made by the banking system they should be considered as the primary expansionary effect of the fiscal policy.

The above pattern of credit creation shows that the internal source of financing in Iran may have similar effects to that of money creation and therefore, there are no financial limits in the formal sense to the volume of deficit financing. The real problem, here, is whether this financing of expenditure does or does not create ill effects on the economy. Since the fiscal policy creates an expansionary effect, it may produce an inflationary pressure. Thus, there are two questions to be answered with regard to the problem of deficit financing. First, whether or not the expansionary effect of fiscal policy can create the inflationary effects. Second, what are the effects of inflation on savings, investment, employment and distribution of income.

7-2 Effects of Deficit Financing

Short-run Effects

The first threory which deals with the effects of deficit financing is the famous Keynesian remedy for stagnation in developed economies. Such economies are characterized by excess capacity in the industrial sector and involuntary unemployment. An increase in the effective demand can increase the demand for consumer goods and receive the desired response from the supply side. Therefore, an increase in the money supply, due to the increase in government expenditure through deficit financing, will result in an increase in the real output and there will be no inflationary effect as long as an excess capacity exists in the industrial sectors. In the application of Keynesian theory[1] to developing countries, two important assumptions of the model

should be considered. First, since the model is a demand determined one, the aggregate supply curve is assumed to be elastic. Second, the multiplier effect works its way out in an integrated market with uniform supply conditions[2].

Neither uniformity nor elastic supply conditions can be seen in a developing country. An under-developed economy is characterised by factor immobility, market imperfection and disequilibrium between demand and supply in different sectors of the economy. While a substantial excess capacity exists in parts of the manufacturing sector, the shortage of capital equipment in other sectors of the economy and market imperfection and technological constraints prevent the movement of economic factors in response to market signals. Assuming a developing country with modern and traditional sectors, the supply response to price changes is much slower in the latter due to technological rigidity in the traditional sector. This fragmented market with different supply elasticities may create inflationary pressure when an expansionary fiscal policy is taken by the governments of developing countries.

The first stage of inflation may start in the food industry. An increase in the effective demand due to the increase in money income will increase the demand for food products. The rigidity of supply in the case of agricultural products because of the time-lag in the supply response, the lack of capital equipment and backward technology, and a large share of small land owners, to whom profit maximization is not the main aim, will result in a slow growth of real output. The last factor may even reduce the growth of the marketed output, if a back-sloping supply curve exists for the marketed output above a certain level of income, that is, the peasants may increase their own consumption of food products with an increase in their money income. Moreover, the scarcity of financial resources for the development of small scale producres may even hamper the technological changes in the agricutural sector in the long run and accentuate the rigidity of supply conditions[3]. Therefore,

a low elasticity of supply of food will increase the prices of food and may create inflationary perssure. A similar response can be expected from other traditional sectors with low supply elasticity, both in rural and urban areas (see chapter 4 for development of small scale industries in rural and urban areas in Iran).

The modern sectors of the economy, with excess capacity in the manufacturing sector in developing countries, are confronted with different types of bottlenecks which make the supply curve less elastic than in developed economies. Since modern manufacturing are mostly in the line of import substitution industries (ISI), they create a strong link with developed economies for the importation of raw materials, intermediate and capital goods. This will increase the dependency rate and the need for foreign exchange, the lack of which may become an obstacle to the expansion of output in the manufacturing sector. Taking into account that the organization of trade in raw materials is likely to be deficient and the volume of readily available stock is likely to be small in developing countries, the foreign exchange bottleneck may create a serious effect at a time of an increase in demand. Also, the lack of sufficient infrastructure in power, rail ways, roads and port facilities, etc. may accentuate the problem of handling the raw material trade and the direct expansion of output. For instance, insufficient transport facilities (port, rail ways and road transport) relative to the expanded demand in 1973-75, caused a long delay in the handling of imports (see chapter 5) and the rapid increase of transport costs. The lack of power in Tehran resulted in the underutilization of industrial capacity in 1976. Moreover, the financial facilities for working capital in developing countries are not as efficient as in developed countries and may cause a considerable delay in increasing the supply in response to the expanded demand(see chapters 3 and 4). Also, the lack of skilled manpower may be another bottleneck which cannot be solved even in the medium run.

All these factors show that the supply elasticity of the mdern sectors of developing countries are far lower than that of developed economies. The above bottlenecks will increase the cost of production and prices and create inflationary pressures despite the existence of an excess capacity in the manufacturing sector.

So far we have considered the effect of induced demand on real output under the existing inelastic supply conditions. To distinguish between the impact of fiscal policy on the effective demand and its direct effect on investment, one should make a distinction between government current expenditure and government investment. It may be expected that the latter would produce fruit sooner or later and therefore an increase in the real output will offset the inflationary pressure. But most government investment is either in the infrastructure which does not affect real output directly, but indirectly by reducing the cost of production and distribution, which will materialize only in the long run; or in the capital goods industires with a long gestation period which may not increase the real output in the consumer goods industries. These factors reduce the direct effect of government investment on real output and may fail to match the supply of consumer goods with the expanded demand. Consequently, at least in the short or medium run, government investment may create similar effects to those of current expenditure, that is, an increase in the effective demand.

However, accepting the rigidity of supply conditions as a structural problem of development, one may argue that inflationary pressure may not be a result of expansionary fiscal policy, but merely a fundamental problem of development[4]. If this is so, the rigidity of supply conditions may create a delay in the adjustment of the market mechanism and cause an increase in the price level even in the absence of any expansionary policy. Therefore, an over expansion of the economy may cause a rapid rise in the effective demand can pull along neither the supply in the traditional sectors due to the rigidity

of the supply conditions , nor in the modern sector due to the limited excess capacity. This may well have been the case in Iran in 1973-76 when the economy was expanded so rapidly through government expenditure that the agricultural sector could not cope with the rising of demand and the basic infra-structure could not handle the excess demand and appeared as a major bottleneck to the development of the industrial sector and slowed down the supply response. In this situation there is no significant difference between expanding the economy through deficit financing er external sources (oil revenue) since both affect the effective demand without creating an important leakage through taxation. When the supply condition is so rigid, the sudden expansion of the economy would create inflationary pressure. The only difference between the above two channels of financing (internal sources of deficit financing and external sources) may be the difference in the time adjustment. While the latter may reduce the pressure from the domestic market by raising the capacity of imports, the former may accelerate the process of inflationary pressure. But , the difference should not be exagerated since in the latter case when the demand for imports goes beyond the capacity of the infra-structure (which is usually very limited, see transport) to handle the imports, it would create inflationary pressure and the availability of foreign exchange can no longer relax the pressure (since investment in infra-structure has a long gestation period, investment may not give fruit in the short-run even if the expansion of the infra-structure is considered).

With such rigidity in the supply conditions, the Keynesian fiscal policy would result in inflationary pressure. Some economists have suggested that economic conditions in developing countries are similar to the inelastic supply curve in full employment in developed economies[5]. Although the reason behind the rigid supply conditions in developed (in full employment) and developing coutries may be different, they produce inflationary pressures with little impact on real output.

While the Keynesian theory is based on the lack of effective demand and elastic supply conditions, the quantity theory of money is base on the assumption of full employment and inelastic supply conditions. With the above theoretical explanation about the rigidity of supply, it seems that the quantity theory offers a better theoretical framework to deal with causes and effects of inflationary policy in developing countries[6].

The traditional quantity theory simply suggests that any increase in the circulation of the money will be reflected in the increase in the general price level, if we assume no increase in the demand to hold money balances. In a developed economy as the Keynesian school or the modern portfolio approach to the quantity theory may argue, the willingness of the public to increase its money-holding may be induced by a fall in interest rates. In the Keynesian view, the fall of interest rates render money-holding less costly while at the same time reducing the prospect of capital gains associated with investment in government bonds. Similarly, the portfolio approach sees the impact of a change in the money stock on the revised demand over the entire spectrum of financial assets generally, with repercussion upon the whole structure of interest rates. Both views suggest that the change in the money stock may be accommodated by a reduction in the velocity of money to a change in interest rates[7]. The existence of well organised financial markets and organised dealings in financial substitutes for money allows changes of interest rates to create the desired effect on money holding. Therefore, changes of interest rates and the velocity-interest relation are the main factors of the mechanism of adjustment in a developed economy.

The velocity-interest relation is one of the factors which determine the substitution effects for money-holding. There is general agreement that the substitution effect stemming from financial assets would be relatively small in less developed countries[8]. There are few organized dealings in bills or commercial paper, and markets in government short-term and long-term secu-

rities are lacking. Of the two types of money markets, organized and unorganized, both are less integrated and narrower than the money markets in the developed economies. The transaction in the unorganized money market is largely based on non-financial assets, mainly commodities, harvest products and estates. with such a fragmented money market, financial assets cannot be easily substituted for money, and real assets play an important role[9]. Therefore, changes of interest rates may not be significant determinants of money-holding in a less developed economy, and the velocity-interest relation may be insignificant.

Since money-holding is particularly sensitive to the yield on real assets, the rate of change in prices may become the most important factor in determining the opportunity cost for money-holding. When prices are expected to increase, money looses some of its store-value characteristic and holders tend to adjust their holdings in order to minimize losses by replacement of money with physical assets. In a developed economy with a high proportion of financial assets, some effects of the expected rate of inflation are reflected in the expected market interest rate while in a developing economy with a large share of physical assests, the change in the price level plays a greater role.

Taking into account that part of the demand for money is to satisfy transaction needs, the growth of real income may also affect money-holding. The money-income relation is subject to the money holder's behaviour with respect to his expectations about his future precautionary needs. The precautionary motive is affected by the degree of uncertainty about the future, the degree of instability and market imperfections. One may argue that these factors may call for a higher money-holding which possesses higher degree of flexibility than other assets. But, if inflationary pressure is considered, money may lose a substantial part of the flexibility and versatility which make it superior asset.

The above discussion on the relation between money-holding, income,

interest rates and prices shows that changes in prices may be the main determinant factor of the velocity of money and demand for money-holding in developing countries. For our empirical investigation, we have used the changes in prices (P) (with the assumption of elasticity of expectation of inflation equal to one) along with per capita income (Y/N) and rate of interest (r) to determine the changes in the velocity of money (V) in Iran. The regression equation so created supports the above theoretical expectation (with a significant regression coefficient; see equation 7-1).

This obviously suggests that under the inelastic supply conditions in Iran, the increase in the money supply due to expansionary fiscal policy would result in inflationary pressure; to that extent the increase in money supply has been due to the government debt and would show the direct (primary) effect (C_g) of the government's fiscal policy in generating inflationary pressure. Since the government debt with the banking system increases the base for credit to the private sector, it would increase the money supply through the banking multiplier. As equation (7-2) shows, this secondary effect (C_p) of government fiscal policy along with the balance of payments effect (F) explains the factors responsible for the changes of money supply(for data for equations 7-1 and 7-2, see tables 7-4, 7-5 and 7-6).

7-1 $$\text{Log } V_1 = 1.835 + \underset{(-0.618)}{0.034} \text{ Log } Y/N - \underset{(-0.553)}{0.165} \text{ Log } r + \underset{(-4.876)}{0.0189} P \qquad R^2 = 0.878 \quad DF = 8$$

7-2 $$P = 1.991 - \underset{(-1.33)}{0.057} C_g + \underset{(-7.694)}{0.098} C_p + \underset{(-6.202)}{0.034} F \qquad R^2 = 0.923 \quad DF = 10$$

So far, we have not considered the effects of expansionary fiscal policy on the balance of payments. The availability of foreign exchange allows the country to increase its imports and bridge the gap between supply and the expanded demand due to expansionary policy. This would reduce the inflationary pressure. But the deterioration of the balance of payments may become the alternative to changes of price level in the economy. The increase in imports

Factors Responsible For Changes In Money Supply

Table (7-4)

Billion Rials

	1962	1963	1964	1965	1966	1967	1968
Changes In : Money Supply (1 + 2 + 3 + 4)	3.9	5.2	4.9	6.4	6.5	10.3	10.8
1- Claims On the Private Sector (Net) = (a - b)	2.2	3.7	9.3	7.3	10.3	7.8	4.7
a- Credit of Banks to the Private Sector	(10.8)	(11.4)	(15.2)	(14.1)	(19.0)	(21.1)	(24.9)
b- Quasi - Money	(8.6)	(7.7)	(5.9)	(6.8)	(8.7)	(13.3)	(20.2)
2- Claims on the Public Sector (Net) = (a - b)	-1.4	0.9	-7.8	-13.3	2.2	12.6	15.8
a- Credit of Banking System to the Private Sector	(-2.0)	(6.3)	(6.3)	(6.0)	(16.0)	(19.7)	(16.8)
b- Deposits of the Public Sector with the Banking System	(-0.6)	(5.4)	(14.1)	(-7.3)	(3.8)	(7.1)	(1.0)
3- Foreign Assets (Net) = (a - b)	3.0	2.7	7.6	-4.4	-2.5	-2.3	-6.0
a- Foreign Assets	(1.8)	(2.5)	(7.7)	(-3.8)	(-1.7)	(6.4)	(-4.6)
b- Loans & Credits received from abroad & foreign exchange deposit	(-1.2)	(-0.2)	(0.1)	(0.6)	(0.8)	(8.7)	(1.4)
4- Others (Net)	0.1	-2.1	-4.2	-9.8	-3.5	-7.8	-3.7

Source : BMI , Annual Reports, 1965 - 76 .

Cont .....

Factors Responsible For Changes In Money Supply

Cont....

Billion Rial

1969	1970	1971	1972	1973	1974	1975	1976
2.5	7.0	19.6	41.7	44.0	124.5	117.3	164.7
3.5	8.6	6.4	23.4	54.3	19.4	171.8	194.8
(31.4)	(31.6)	(47.4)	(84.8)	(126.7)	(209.2)	(387.9)	(424.1)
(27.9)	(23.0)	(41.0)	(61.4)	(72.4)	(189.8)	(216.1)	(229.3)
15.1	26.7	-13.3	12.8	-0.8	- 6.9	41.3	19.7
(27.2)	(31.7)	(29.4)	(45.0)	(77.0)	(147.5)	(178.9)	(335.4)
(12.1)	(5.0)	(42.7)	(32.2)	(77.8)	(154.4)	(137.6)	(315.7)
-5.1	-20.9	36.8	33.8	52.4	348.5	-51.7	102.5
(3.8)	-	(37.2)	(28.4)	(73.5)	(374.7)	(8.1)	(168.5)
(8.9)	(20.9)	(0.4)	(-5.4)	(21.1)	(26.2)	(59.8)	(66.0)
-11.0	-7.4	-10.3	-28.3	-61.9	-238.1	- 44.1	-152.3

Source : BMI , Annual Reports, 1965 - 76 .

Velocity Of Money and Interest Rates

Table (7-5)

Year	Narrow Money	Quasi-Money	Broad Money	Savings Rates %	Interest Rate On Deposits
1961	8.1	20.1	5.8	-	-
1962	7.9	13.9	5.0	-	-
1963	7.5	11.3	4.5	-	-
1964	7.6	10.7	4.4	-	-
1965	7.5	10.0	4.3	5	6
1966	7.3	9.0	4.0	5	6
1967	7.0	8.1	3.7	4	6
1968	6.9	6.9	3.4	4.5	7
1969	7.6	6.0	3.3	5.5	8
1970	7.9	5.6	3.3	4.5	7.5
1971	8.4	5.5	3.3	4.5	7.5
1972	7.4	4.9	3.0	6.5	7.5
1973	9.0	5.8	3.5	7	9
1974	9.6	6.5	3.9	7	9
1975	8.1	5.2	3.2	7	9

Source : BMI , Annual Reports, 1965 – 76 .

General Index Of Prices and Wages For 1959 - 75

Table (7-6)

Year	General Whole Sale Price Index	Index Of Wages Of Construction Workers
1959	100.0	100.0
1960	102.0	110.4
1961	102.2	103.4
1962	103.6	98.2
1963	104.0	96.0
1964	109.6	103.2
1965	110.6	106.8
1966	110.0	108.3
1967	110.2	114.7
1968	110.9	128.0
1969	100.0	100.0
1970	103.4	103.8
1971	110.7	106.6
1972	117.0	125.3
1973	132.3	152.3
1974	153.4	196.2
1975	159.4	290.3

Source : BMI , Annual Repprts, 1969 - 76.

may even come before the increase in general prices. In a demand-induced process of income expansion, imports are likely to spill into the economy as soon as income begins to expand. At first, imports of commodities with a low domestic elasticity of supply and infinite or high income supply elasticities abroad and with low transportation costs will begin to rise[10]. Since agricultural products suffer from strong competition, they are the first to be imported. This also may accentuate the problem of increasing the output in the case of the agricultural sector. The government's control of prices in this case is always accompanied by an increase in imports. During 1960-75, the government of Iran has been increasing its spending on the import of agricultural products. This is one of the reason for the slow rate of inflalation during 1965-68, despite the continuous fiscal expansionary policy. At the same time, the net current account of the balance of payments exhibits an accelerating deficit which was not even bridged by the increasing rate of external borrowing and resulted in the net depletion of foreign exchange reserves and the sale of gold. During 1968-70, in particular, the pressure on the balance of payments was significant, that is, around 10 percent of external payments was made through the net depletion of foreign exchange reserves of the central bank[11]. The government's willingness to reduce inflationary pressure could have come to an end, had there been no increase in oil revenue in 1971 and 1973-4.

The above may have been a minor factor causing the deterioration of the balance of payments. In this respect, the most important element is the increase of the degree of dependency of the economy which raises the need for foreign exchange. As has been explained, the ISI process gears the manufacturing sector to the foreign supplier, and renders the expansion of production more dependent on the availability of foreign exchange. Even in the case of the manufacturing sector with an excess capacity, the existing economic bottlenecks which cause delay in the expansion of production may create a fear of inflation and cause the import of a large range of industrial products, if the

availability of foreign exchange allows it to do so. If all bottlecek commodities are imported, in this way, the hope of an increase in domestic production comes to a halt. If the induced-demand is large, imports may result in the over-utilization of transport facilities and still push up the prices. Also, the higher degree of dependency makes the economy more sensitive to inflationary pressures in the advanced economies. Both factors may have been responsible for the rapid rate of inflation during 1971-75 period in Iran, which came as the consequence of the enormous amount of the government's spendings.

Totally, the consequence of expansionary policy is either the increase of price levels, or deterioration of the balance of payments or both, depending on the extent of deficit financing, the availability of foreign exchange, and the lack of infra-structure in power, transport and so on. It may produce little effect on the increase of real output in the short-run. Its effects in the long-run depend on the effects of inflation on savings, investment, employment and distribution of income.

Long-run Effects

The effects of inflation on savings arise from its effects on the redistribution of income. In the Keynesian view, inflation will lead to redistribution of income from wage and salary earners with a low propensity to save to profit earners with a high propensity to save, since there is a lag between price increase and wage rises and also the changes in prices and wages may not be proportional. The redistribution of income operates as the adjustment mechanism for equalizing savings and investment[12]. Therefore, savings will increase along with and as a consequence of an increase in investment.

Considering the monetarist's view, inflation would transfer some part of the value of money from money holders to the government as issuer of money. Interpreting the above as an inflationary tax, theresult is the transforma-

tion of some part of private consumption and savings into the public sector. The ultimate effect depends on the effects of inflation on private savings. If the reduction in private savings is more than the mobilized savings through the reduction in private consumption, the effect will be a reduction in national savings and vice versa. Contrary to the Keynesian view, inflation cannot be regarded as a tax on consumption only. In this way, the fiscal approach of capital accumulation through inflation or forced savings may become an obstacle to the development of financial institutions and voluntary savings.

Since inflation would reduce the real rate of deposit, it makes saving with the banking system less attractive. If inflationary pressure is expected to continue , depositors would adjust their deposits with the banking system by replacing them with real assets.or transerring their funds abroad. As table (7-5) shows during 1972-75, the velocity of quasi-money increased along with the velocity of money which indicates the effect of inflation on savings. In this case, government revenue from inflation will be a diminishing function of the expected rate of inflation, and with the increasing rate of inflation in the long run the government gain from inflation will decline. However, since, as has been argued, the adjustment of nominal rates of interest to the rate of inflation is very slow in developing countries, the negative effects of inflation on private savings will be higher. For instance during 1973-75 when the Iranian economy was experiencing a very high rate of inflation, no change in the interest rates paid on deposits can be seen (see table 7-5). However, despite the unattractive position of the government debt and securities from the banking system stand point, the central bank as the executive body of government fiscal policy can impose the government debt on the banking system and financial institutions. Usually, the central bank of Iran raises the legal reserves of the banking system with the central bank and the obligation of the banking system to hold government bonds.

However, the government is not the only body which may gain from infla-

tion, on the one hand, private borrowers at banks may collect revenue from the inflation tax on deposit balances if their loan rates are not fully adjusted to the rate of inflation. On the other hand, the bank shareholders would gain from inflation tax if the loan rates are fully adjusted to the rate of inflation[13]. In Iran, the former is the case for most of the big industrialists who borrow from the specialised banks whose lending rates are under government control, while the latter is the case for the commercial banks which have a larger possibility of adjusting their loan rates. The above indicates an income redistribution in favour of profit earners and against interest earners, but it may not have any clear effect on savings since there is no reason to believe that the MPS of profit earners will be higher than that of interest earners. Taking into account that, in the long run, large deposit holders will switch to other sort of assets and particularly real assets, the redistribution may be against small interest earners.

However, the above shows that inflation causes two income redistribution processes, first, in the private sector from wage earners to profit earners and secondly, from the private sector to the public sector. If inflation become chornic, in the long run, there may not be any income redistribution of any significance since, on the one hand, wage earners may be expected to learn from experience and bargain in term of real wages, and on the other hand, people will be induced to economize upon money-holding, thus, limiting the imposition of tax to small fraction of the monetary increase. It seems, both effects (rising of wages and declining of the velocity of quasi-money) have appeared in the Iranian economy during 1972-75, as tables 7-5 and 7-6 show. Therefore, using inflation as forced savings may have little effect or even a negative effect on the accumulation of savings in the long run. Moreover, so long as the inflationary pressure has been reduced by the deterioration of the balance of payments, it may have resluted in reducing national savings. This effect can be expected to be important in an open economy like Iran, both

because of its higher propensity to import and transferring of deposit abroad.

The effects of inflation on the structure of investment appears, on the one hand, in the form of a high share of investment in unproductive, short-term and speculative activities, and on the other hand, encouraging the capital intensive industries. As far as the former is concerned, the fall of real rates of interest paid on financial assets would encourage the investment in real assets and particularly in land and estates. The speculative demand for land in Iran, especially in the urban areas, has been one of the obstacles to the allocation of resource to productive activities. Although land holding for speculative purposes have been discouraged by taxation (see p389) , transactions in land are so profitable and have overshadowed most of productive activities largely because they carry a minimum risk both under inflationary pressure and relative to investment in industry. For instance in 1960-1 at a time of inflation a piece of land was transacted three times a day[14]. Under similar conditions in 1976, the government had to limit the number of transactions on land to once a year in order to freeze speculation in land. To a less extent similar effects can be seen in the transaction of estates.

As far as the latter is concerned, by cheapening the capital relative to labour, inflation would encourage the development of capital intensive industries. This change in the factor proportion would affect investment in the agricultural sector with a high proportion of labour employed. In the long run, most of the small farms will be affected by inflation and wage rises and therefore, they would either be closed down due to the high cost of production and low degree of competition with imports from abroad, or they would be taken by large-scale and capital intensive units which are able to reduce the cost of production by replacement of labour with capital. However, the agricultural sector will be relatively less attractive to investors than other sectors due to the low productivity of labour.

In the manufacturing sector, the ISI industries will be encouraged

while the export industries will suffer from lack of investment. When manufacturing by size is considered, the small-scale industries may come under pressure of competition in the market. Since their method of production is largely labour intensive, they suffer from a lack of flexibility in accommodating their method of production to changes in factor proportion. Therefore, the high cost of production may sweep them away from the market. Also, non-traded goods such as transport services may receive greater attention.

The above shows that the structure of employment would change drastically. A large number of workers would be pushed out from the agricultural sector, while the development of the industrial sector towards the capital intensive industries may not allow the manufacturing sector to absorb the masses of unemployed from the agricultural sector. This may accentuate the existing gap between output and employment in the manufacturing sector, particularly, when it is recognised that in the long-run the growth of small-scale industries which are the main source of the industrial employment is bound to be limited. In this way, in the long run, inflation may accelerate the process of polarization of social classes, and create a mass reserve army of unemployed. Although in the short run, unemployment can be reduced by the expansion of the construction and public sectors, in the long run, these sectors may not be able to absorb the workers pushed out from the agricutural sector.

These changes may result in social and political problems related to migration from the rural areas, urbanization and unemployment. This is the political consequences of inflation which makes the government reluctant to use inflationary policy. This situation is aggravated by the ever-worsening process of distribution of income which accompanied by a successful inflationary policy. To reduce these consequences, the government has to accept a stop-go policy and not allow inflation to work its way out. However, the serious consequences of inflation during 1958-61 and 1973-77 resulted in a change of government (at least as a political window dressing) and the taking up of a

deflationary policy leading to a deep recession. Therefore, apart from the economic effects in the long run such as the regressive impact on private savings and development of the capital market, misallocation of resources and raising of speculative investment, the social and political consequences will limit the usage of inflation as a means of taxation. While the political determinants are the impeding factor to the development of the tax system and call for inflationary financing with a higher political applicability, they will also limit the use of such a policy in the long run due to its social and political consequences.

Note

1— Rao, V.K.R.V., Deficit Financing For Capital Formation And Price Behaviour In An Underdeveloped Economy, in Rao, Essay in Economic Development,1964 ; Rao,V.K.R.V., Investment, Income and Multiplier In An Underdeveloped Economy, in Agarwala,A.N. and Singh, S.P., The economic of Underdevelopment, Oxford 1973.; Adler, J.H., Deficit Spending and Supply Elasticities, Indian Journal of Economics, July 1956 ; Shaw,G.K., An Introduction to the Theory of Macro-economic Policy, 1973.

2 - Peacock,A. and Shaw,G.K., The Economic Theory of Fiscal Policy,1971.

3— Adler, J.H., Op.cit., P. 18.

4— For structuralism see,Robert de Oliveira Campos, Economic and Inflation With Special Refernce to Latin America, in OECD, Development Plans and Programmes, OECD, Paris, 1964, PP. 129-37; Kirkpatrick,C.H. and Nixson, F.I., The Origins of Inflation in Less Developed Countires: A Selective Review, University of Manchester, July 1974 (Mimo.).

5 - Rao,V.K.R.V., Op.cit. 1973.

6 - For the quantity theory in developing countries, see, Shaw,G.K., Op.cit.; Adekunle,J.O., The Demand For Money : Evidence From Developed and Less-Developed Economies, IMF Staff Papers, July 1968.

7 - Shaw, G.K., Op.cit. P. 164.

8 - Adekunle,J.O., Op.cit., P. 234.

9 - Ibid.

10- Adler,J.H., Op.cit. P. 31.

11- BMI, Annual Report, 1971.

12- Similar adjustments mechanism can be seen in the Mrs Robinson's, Kaldor's and Kalecki's models; See J. Robinson, A Model of Accumulation, in Essay in the Theory of Economic Growth,London, 1962; Kaldor,N., Alternative Theories of Distribution, Review of Economic studies, No. 2, 1955-6 ; Kalecki,M., The Theory of Economic Dynamics, London, 1954.

13- Shaw,E.S., Financial Deepening In Economic Development, Oxford, 1973,P.153.

14- Khosh-Kish, Y., The Remedy of the Crisis, The Bulletin of the National Bank of Iran, Vol. XXXI, No. 254, January/March, 1964, PP. 1-11.

Chapter Eight

8 Development of Oil Industry in Iran

Introduction

In this chapter we look at the development of the oil industry and its effects on the economic development of Iran. The chapter is divided into two parts; the first section deals with the development of the oil sector and the causes behind the growth of oil revenue since the exploitation of the Iranian oil resources. The second section is concerned with the effects of oil on the whole economy, that is, its integration with the rest of the economy through the forward and backward linkages, its indirect effects or fiscal effects and the overall effects of the oil sector on the structure and the pattern of development.

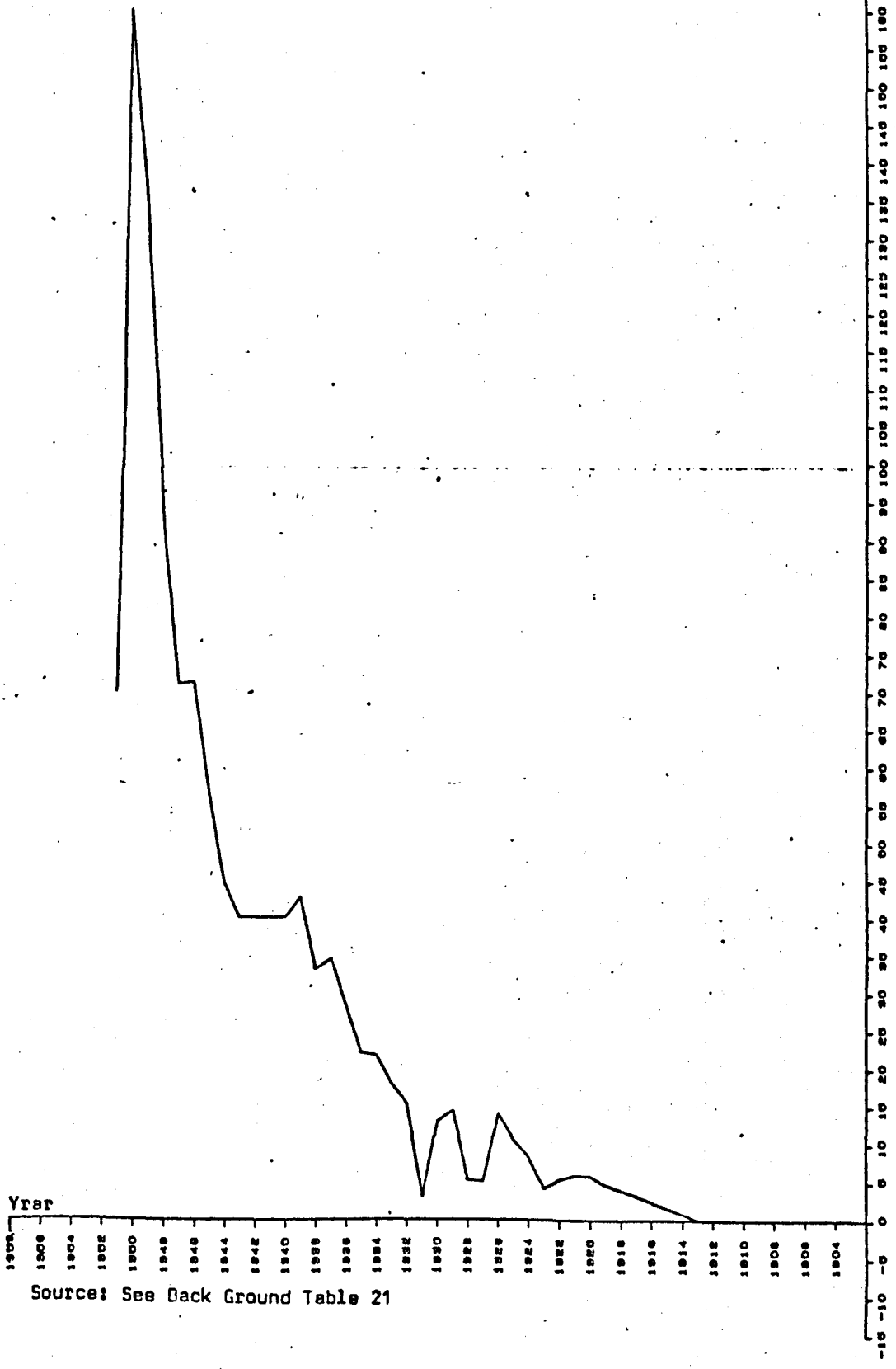
8-1 Growth of Oil Revenue

The pattern of oil revenue accruing to the Iranian government since the exploitation of the oil resources can be divided into two subsequent and distinct periods (figures 8-1 and 8-2). First, the pre-nationalization period concerning forty years of the development of the Iranian oil industry from 1911 to 1951 which is characterised by a significant instability and fluctuation, although with a tendency to increase. This period can be divided into two sub-periods, that of 1911-33 and 1933-51. Most of the fluctuations in the government revenue from oil can be seen in the former sub-period, while the latter enjoys a fairly stable and growing trend. We can hardly speak of the growth of oil revenue during the 1911-33 period. During 1911-19, only £ 335 thousand was paid to Iran and after a narrow fluctuation during 1919-24, the government revenue reached its peaks only in 1926-7 (after a drastic fall in 1928) and 1929. After 1929, Iran experienced a fairly stable growth in its oil revenue which was approximately 14 percent annually and reached a peak

£ 100,000

Figure (8-1)

Oil Revenue During 1913-51

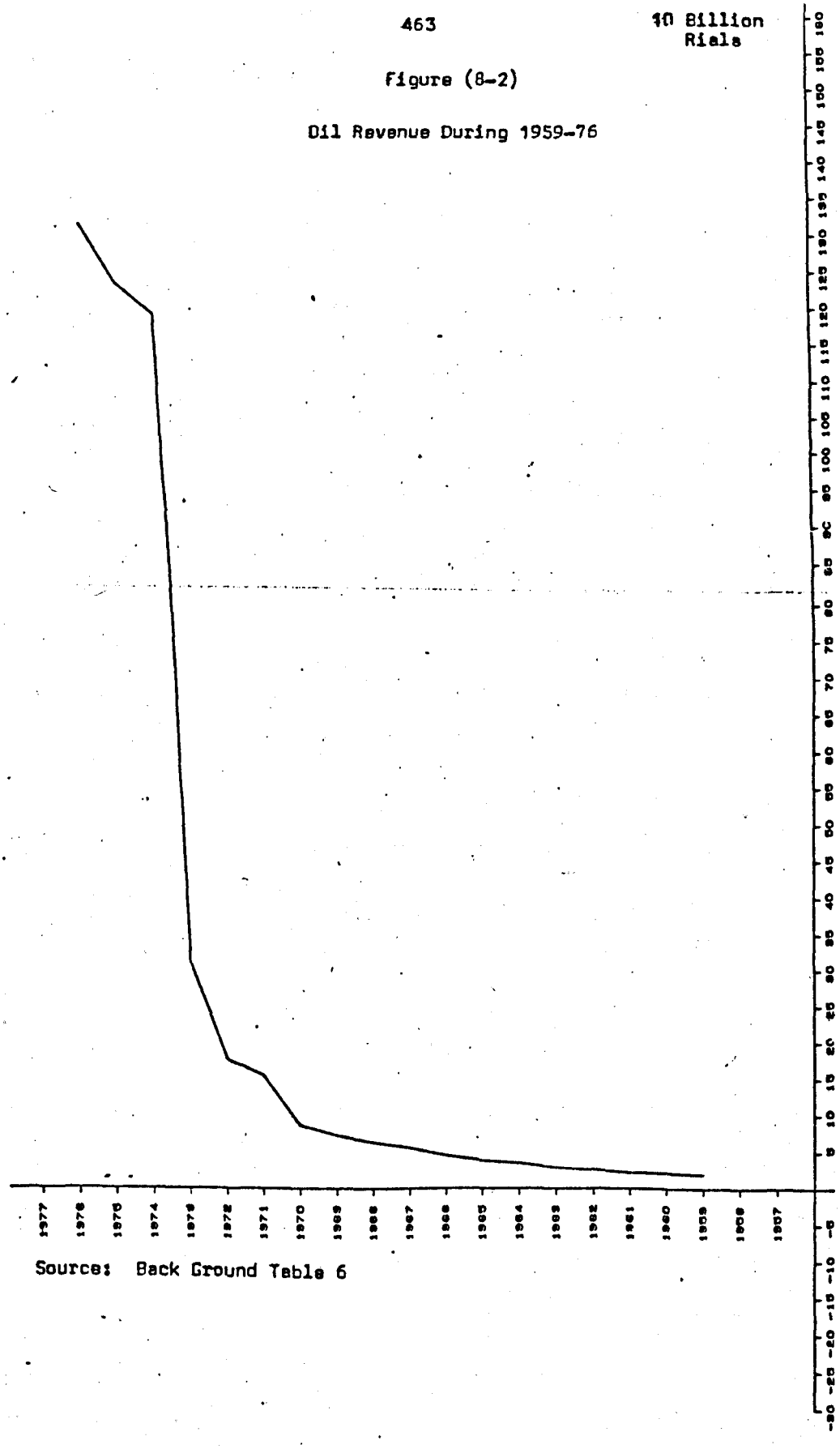


Source: See Back Ground Table 21

10 Billion Rials

Figure (8-2)

Oil Revenue During 1959-76



Source: Back Ground Table 6

of £16 Million in 1950, when the nationalisation dispute brought the oil production to a standstill for four successive years. The second period, the post nationalization era, is characterised with the rapid and steady growth of oil revenue. By 1957, the oil production came back to its full capacity and ensured an annual growth rate of 14.9 percent during the 1960-70 period. During the first half of the 1970's, the growth of oil revenue shot up at a rate of 75 percent which has opened a new dimension in oil history.

There are a number of reasons which may explain the above pattern of oil revenue during the 1911-51 and 1954-75 periods. These complex and interrelated factors are concerned with the economics of natural resources and its optimal rate of depletion. Since we are dealing with the growth of revenue accruing from the exploitation of natural resources, the limited life of such resources should be considered in the evaluation of the utilization of national wealth. The limitation on the life of natural resources is not only determined by the existing capacity of reserves, but also by the possible changes in the world demand due to the technological changes and the possible substitution of artificial products with a superior or similar nature. This latter factor caused oil to become a substite for coal in the world energy consumption. Therefore, it may even justify an acceleration in the exploitation of natural resources in a shorter period in order to maximize the benefit accrued to society from natural resources. Here we should distinguish between the maixmum utilization of oil resources, that is, generating the highest poesible flow of revenue during the limited life of such resources, from the use of the revenue to ensure the continuation of such income after the depletion of the oil resources. In this section, we are concerned with the evaluation of the former.

However, such optimality depends on the pattern of demand for particular natural resource, the nature of the market and especially the price expec-

tation. Since there is no forward market for oil resources, the price expectation, which is affected by uncertainty about changes in demand and technological progress, may be the main determinant of the rate of depletion of natural resources[1]. Changes in expected prices and uncertainty cause the actual rate of the depletion and prices in the short run to be different from the optimal rate of depletion which may be determined by the market machanism in the long run[2]. This is the rate of risk involved in the oil market which forces the oil companies to determine their optimal rate of exploitation of oil resources for the forseeable future rather than for the long run. In addition to uncertainties arising from an inability to predict market movements, there are important political uncertainties for foreign companies involved in extraction. Consider a foreign company with a concession to exploit and sell oil, in Iran. Although, formally the concession is open ended, the firm fears that in practice the host government may, at some future date, end the concession without prior notice (for some example see below P 473). Under this circumstance the firm will raise the rate of depletion in order to maximize its profit, if it believes that there is a strong possibility that the concession will be ended in a certain date in the future. This would reinforce the above uncertainty and therefore raise the depletion rates[3].

However, what we are concerned with is not the determination of the optimal rate of depletion for a firm, but, rather the effect of such a decision on the revenue of the host government. In this respect, although it is the oil companies which determine the rate of growth of output, and oil prices, according to the above mentioned factors, the relationship between the host government and the oil companies can be a significant factor in determining the share and the growth of government revenue from the oil resources. To evaluate the effects of these factors on the oil revenue in Iran, we will look at three main questions:first to what extent

international politics have affected the revenue share of the Iranian government. Secondly, has the structure of international oil markets affected the magnitude of oil revenue ? Thirdly, has the Iranian government pursued a long run policy with regard to the exploitation of oil resources ? These would also explain the instability or stability, the slowness or rapidity of the rate of growth of the oil revenue accrued to the Iranian government in different periods. Based on the analysis of past experience we may be able to anticipate the magnitude of the future oil revenue and its importance in fiscal and foreign exchange earnings in the future.

8-1-1 Oil Concessions

The most determinant factor of the share of oil revenue accruing to Iran has been the economic and political ability of the Iranian government to bargain against the oil companies. When economic performance has been bad and the fiscal capability of the government has been weak and politically unable to raise the revenue enough to cover its expenditure, the concession granted to the foreign investors have been most favourable to them. The economic and political situation at the end of the nineteenth and the begining of the twentieth century may clearly explain the nature of the first oil concessions in Iran.

At the turn of the century the continous Persian-Russian wars resulted in the weakening of the Iranian feudalistic state. While the military and court expenditures were growing fast, the traditional sources of government were not sufficient to finance these increasing expenditures. This caused the government to resort to the foreign banks for loans using as collateral, pledges of certain rights for foreigners in Iran[4]. Under this economic and political atmosphere the first oil concession was granted in 1901 to William D'Arcy, a British subject (for the main points of the concession, see Appendix A).

In the 1901 oil concession, obviously, little economic consideration was taken into account. The oil companies were free in the determination of the output, prices and the optimal rate of depletion. However, by elaboration on the determination of output and prices, the oil companies reduced the share of the Persian government from the sale of oil. The first and the most important factor which affected the share of government from the oil revenue was that part which was to be collected through taxes. Since the levied tax was fixed, by increasing the rate of oil exploitation, the oil companies reduced the marginal share of Iran from the oil production. This fixed tax may also have encouraged the raising of the rate of depletion as much as the reduction in oil prices(due to the increase in the production) could have been offset by the decreasing share of taxes paid to the Persian government. Since the annual tax payment was so low this may not have even compensated for the loss of the tax revenue due to the exemption granted to the oil companies for their imports and land taxes. However, the fixed tax was a floor for Iran's oil revenue and was insignificant relative to the share of royalty payments.

The second and most important factor in the D'Arcy concession, which was the main cause of the fluctuation of oil revenue during 1910-33 was the royalty share. Since the royalty was linked to the net profit of the oil companies, the revenue of the Persian government was sensitive to the boom and recession of the world economy and particularly to the oil companies profits. However, although the rate of royalty was low and despite the revenue fluctuation, at that level, the profit-sharing system could ensure the maximum revenue from any unit of oil production due to the oil companies policy with regard to the profit maximization. Despite this buit-in profit maximizing mechanism, the Persian government's share from the oil revenue declined sharply and was not proportional to that of the oil company during 1920-30. This was largely due to the new interpretation of the D'Arcy oil

concession and the company's dividend policy rather than declining of APOC (Anglo-Persian Oil Company, the only operating oil company in Iran during the 1901-50 period) profits. Basically, the APOC questioned the right of royalties being applied to the whole operation of APOC. It is argued that since the subsidaries were operating outside Persia, they should not be liable to pay royalties. This dispute, along with the failure of the Persian government to protect the physical assets of the company resulted in the so called Armitage Smith 'interpretative' agreement in December 1920. According to the new agreement, which was never ratified, although the profit sharing principle applied to all the companies formed by the APOC, a large deduction from the net profit was provided for the companies operating in refining, transportation and distribution[6]. In practice this new interpretation opened great flexibility for APOC. A vertically integrated company,such as APOC, was easily able to allocate the largest part of its profit to downstream activities and reduce the share of the Persian government. The new interpretation of the company's policy with regard to dividend payments and the world depression in 1931, reduced the share of Iranian government from oil revenue to £307,000.

However, with the rise of the bourgeoisie and the domination of the bourgeois state, the needs for higher public expenditure in the infrastructure, such as roads and communications and particularly for military expansion, was rising. Since the share accruing to Iran from the oil revenue was insufficient and unstable, Reza Shah tried to obtain a more stable and higher share of revenue which resulted in the new agreement in 1933 (for the major points of this concession, see Appendix A).

It seems that the experience of 1920-30 forced the government to seek a stable source of revenue. The government obtained this stability by linking the roylty payment to output rather than profits. It even went further to ensure this stability by introducing a floor to its revenue from the oil

production through the annual minimum payments. However, since the roylties and tax payments were based on production, the only way to increase the revenue from oil exports was to encourage the AIOC to raise the rate of depletion. The lower rate of tax for the excess of the 6million tons per year obviously shows the government's intention to encourage oil production. Although the government was able to increase its revenue by encouraging the AIOC to raise oil production, it does mean it was able to maximize its revenue from each unit of production. This is particularly important when it is recognised that the 1933 concession was to freeze the oil price upon which the royalties and taxes were to be calculated for 30 and 15 years, without any consideration for the rate of inflation. This implies that the Iranian government guaranteed an oil supply to the AIOC at a stable cost. Therefore, the 1933 concession with its diversion from the profit sharing system gave a greater flexibility to the AIOC in determining the selling price and output of oil. In this way the AIOC policy with regard to the maximization of profit, not only did not benefit the Iranian government, but it led to an elaboration on the production in order to reduce the cost of production, that is, the revenue of the Iranian government. Since the level of oil production was left to be determined by the oil company, it was able to reduce the rate of production when expected prices in the future would be higher, and to increase the rate of exploitation when the expected prices would be declining. By this elaboration on determining the level of production, the oil company could minimize its cost and widen its profit margin against the revenue of the Iranian government. Particularly during the 1933-37 period the annual rate growth of profits belonging to the AIOC was far higher than that of the revenue of the Iranian government, that is, 29 percent compared with 17.8 percent. With the expansion of the oil production after World War II, the gap between the growth of AIOC's profits and the revenue of the Iranian government was drastically widened. While the former enjoyed an annual growth

Growth of Oil Revenue By Sources

Table (8-1)

Percentage

	1919-30	1933-37	1944-48	1932-48	1960-70	1970-75
Oil Payments to the Iranian Government	9	17.8	19.7	14.5	14.9	75
Profits of AIOC(APOC)	6	29.5	43.5	13.6	-	-

Source: See Back Ground Tables 6 and 21.

rate of 43.5 percent in its profits, Iran's revenue increased by only 2 percent to a rate of 19.7 percent (see table 8-1).

Despite the government's achievement in obtaining higher revenue, it is hard to say that it had any success in maximizing its revenue from the oil resources. Its achievement can be attributed to the higher rate of production rather than a higher rate of revenue per unit. As background table (21) shows, the Iranian government was not so better off in per ton terms after 1933 than during the 1918-23 period when the effects of the Armitage Smith "interpretative" agreement had not completely appeared. However, in comparison with the 1901 concession in which the profit sharing system could assure a built in maximizing mechanism, it can be said that the 1933 concession not only lack such an assurance, but also, the fixed price system caused a diversion from the maximization in utilization of natural resources. While the government should have looked at the expected prices in the future, it seems that it was totally affected by the past experience of depression..This short-coming of the 1933 concession was to some extent offset by the new fixed tax system, in which tax payments were linked to oil production, although the tax rate was still regressive with respect to the level of production. Similar to the 1901 concession, it is not known whether the tax revenue of this sort was sufficient to offset the loss of tax revenue due to the exemption granted to the oil companies for their imports and other taxes. Altogether it is difficult to say whether the 1933 concession was a victory or a setback to the country. On the one hand it was a victory since it reduced the areas of the cencession and guaranteed a minimum of revenue in times of depression. On the other hand, in the long run and from a revenue standpoint, the 1933 was a setback; neither did it ensure a rate of growth, at least as high as that of the oil company, nor did it show any significant improvement in the government's revenue in terms of per unit of production during the first 15 years of the concession. However, both concessions, from the revenue point

of view, were very poor. During the 40 years of the domination of AIOC, on the Iranian industry, the Iranian government received only 10 percent of the value of the exported production of its crude oil[8].

After World War II, with the change in the international and domestic political atmosphere, the Iranian government made a further effort to raise its share from oil production. Both domestic and international events brought about the necessary conditions for such an effort. In the time of occupation in 1946, Russia proposed to the Iranian government an agreement for oil concession on the base of a 51-49 profit sharing ratio. After the withdrawl of Russian troops from Iran, the Iranian government refused to recommend to the Majlis (House of Commons) a draft oil agreement proposed by the Soviet Union[9]. This silent refusal was a result of British influence on Iranian politics and mostly for the protection of British interest in Iran. In 1947, George Kirk stated, " The British government,..., were apprehensive that , if the Persian government were encouraged to reject outright the Soviet demand for the joint development of the oil resources of northern Persia, their latent nationalism might be tempted to challenge the Anglo-Iranian concession in the south."[10] "Early in September 1947 the British ambassador in Tehran handed Premier Ghavam a note which recommended that the Soviet draft should not be rejected outright, but the door be kept open for further discussion..."[11] The awareness of the British politicians of the changes occuring in Iran, although not deep enough, led them to respond to the demand of the Iranian government for a higher share of oil revenue.

In 1949, having agreed on some modification of some of the terms of the 1933 oil concession, a supplemental agreement was proposed by AIOC and signed by the Iranian government[12]. Its main provisions were a) the per ton royalty was to increase to 6 shillings, b) the annual payment in respect of Iranian taxation was to increase to one shilling per ton, c) a minimum payment of £4 million per annum in respect of dividends and allocation to gene-

ral reserves was to be guaranteed and d) a different basis for fixing prices of oil consumption in Iran was to be determined. The Iranian government submitted the agreement to the Majilis for ratification. While the special committee was considering the terms of the agreement, two events with regard to the oil politics in the Middle East (which was also influenced by changes in Iranian politics) affected the opinion of the people and the Majlis. First, the Saudi-Arabian government and ARAMCO reached an agreement on a base of a 50-50 profit sharing in December 1950. Second, at the same time the Iraqi government, which had been proposed a similar increase to that of Iran, rejected the proposal and was seeking better terms[13]. Under these political changes in the Middle East in 1951, the special committee recommended the Majlis to reject the AIOC offer and proposed to nationalize the oil industry. The Majlis accepted the nationalization proposal and the three years dispute between the Iranian government and the AIOC supported by the British government started[14]. During these years of challenge the Iranian government was not able to sell its oil which resulted in economic chaos. The economic problems on one hand and the joint Anglo-American effort on the other, brought down the Mossadegh's government in August 1953 and ended the story of oil nationalization in Iran[15].

In 1954, the British officially accepted the oil nationalization in Iran largely in order to reduce the domestic nationalistic tension against the new government. Also, for a similar political reason (that is, the dissatisfaction of Iranian about the domination of AIOC), a multi-national oil company known as a consortium, was introduced to take up the operation of the oil industry. With these two minor considerations, Iran received a 50-50 profit-sharing agreement which dominated the international oil industry in the 1950's.

The 1954 agreement was return to the principle of the D'Arcy's concession with some modification in the case of operational-management in order

to observe the above changes, royalty, taxes and determination of porfit (see Appendix A for the main points of 1954 oil contract). However, this concession was by no means what Iran was seeking from the nationalization of the oil industry in 1951, that is, the control of its oil resources. The new contract, like the others, left the level of production and price to be determined by oil companies. However, there is no doubt that the 1954 concession with its 50-50 profit sharing was superior to the previous ones. As a consequence the Iranian government's revenue rose from £16 million in 1950 to £76 million in 1957. In per ton terms, Iran's receipt in 1957 was 400 percent higher than that of 1950. But this financial success may overlook the advantage that the Iranian government gained through the nature of the new oil contract. Although there are some similarities between the 1954 princple of profit sharing and 1901, some differences can be seen. Unlike the 1901 concession, that of 1954 clearly specifies that the net profit is only related to the producing stage and, therefore, the downstream activities are not included. This difference called for a method of calculation of net profit which had been anticipated by the introduction of the postal prices. The net profit as such would be affected by the dominated price system and the changes in oil prices. Also, despite the profit sharing system, there was no reason to believe that the oil companies maximization policy would benefit the Iranian government as long as the downstream activities were not included. This loophole in the calculation of profit along with the output question has been a source of dispute and permanent negotiation between the Iranian government and the oil companies.

In 1957, it appeared that the Iranian government was not satisfied with its revenue from the oil industry. Since it has tried to raise its revenue by negotiating new terms with the consortium and developing its oilfields outside the consortium. As far as the former is concerned, the main issues have been disallowance of the marketing expenses, expensing of royalties,

increases in the government's share of profits, increases in posted prices and raising the level of production. Leaving aside the latter two for a careful examination, we will briefly evaluate the government's success in dealing with the consortium in the former issues.

The price reduction of August 1960, provided a turning point in oil history, Producing nations, anticipating further reductions in posted prices, were forced into making a stand against the falling prices. In September 1960, the Organization of Petroleum Exporting Countries (OPEC) was formed.[17]. Although, at the begining its main object was price control, it gradually became an organization for the protection of the interests of oil producing countries. The gradual development of OPEC brought about the necessary conditions for changes in the structure of the oil market. The structure of the oil market, which was characterised by the domination of an oligopoly of buyers, gradually turned toward an oligopoly of sellers, which created a better bargaining position for the producing nations. Under this change in the structure of the market, the first success of OPEC (apart from the case of prices) brought about a reduction in Iran's share of marketing expenses. The new arrangement reduced the government's contribution from 1.5 percent to 0.5 percent per barrel, which saved Iran about 2 to 2.5 million dollars in 1962[18]. However, it was a minor success in the sense that it was an easy issue on which to gain the oil company's approval.

The expensing of royalty payment was a much more difficult problem to solve and took a much longer. In the payment of tax and royalty, the 12.5 percent share of profit as royalty was included in the 50 percent tax on profit; in other words the royalty was part of the 50 percent arrangement. In 1964, the NIOC reached an agreement with the consortium companies to treat the 12.5 percent royalty as an operating expense deductable before arriving at the taxable income. As a consequence, the Iranian's effective share from the consortium operations were raised to 56.25 percent[19]. In turn the consor-

tium was to receive a discount on their posted prices at a rate of $8\frac{1}{2}$, $7\frac{1}{2}$ and $6\frac{1}{2}$ for the first three years of the agreement. This left the Iranian government with an extra $3\frac{1}{2}$, 4 and $4\frac{1}{2}$ cents per barrel for the three successive years[20]. In 1968, the companies agreed to gradually eliminate the allowance off posted prices for tax purposes util 1971.

The economic conditions in 1970 raised the demand for petroleum throughout the world which coupled with the strengthened OPEC allowed the oil producing nations to exert their oligopolistic power. This resulted in an increase in posted prices and the rate of tax from 50 to 55 percent[21].

In 1973, the NIOC took over the entire operation of the Iranian oil industry. In return, it accepted a commitment to supply the consortium with crude oil for 20 years[22]. The sale will be governed by the OPEC posted prices, and in this sense the percentage profit share of the foreign operators, after the deduction of various costs and royalties, is essentially preserved. Therefore, the main change was the transformation of operating process to NIOC which by no means can be interpreted as the total control of oil resources. Although it has given the government a control over the total production and sale of oil to individual buyers, the government is not able to exert its power since consumer markets (refining and marketing) are largely under control of the major oil companies. It appears that, except for a short period, Iran has been faced with lower demend. This, to some extent, has been due to the non-comittment of the consortium to market the Iranian oil crude. The consortium has been reluctant to buy the Iranian heavy crude[23].

However, the Arab-Israel war in 1973, followed by the oil embargo by Arab producers, which cut off oil production by 30 percent, provided another increase in oil prices. It was followed (in 1974) by an increase in royalty rates from 12.5 to 14.5 percent and later to 16.67 percent. This was accompanied by an increase in the income tax rates from 55 percent to 65.75 percent[24]. By 1975, altogether, the share of the government per barrel increased

to 96.8 percent of posted prices and left the oil companies with 22 cents per barrel[25]. Therefore, in evaluating OPEC's successes, one should realize its importance not only in the raising of prices, but also the incease of its share against the major oil companies which for about 7 decades had dominated the international oil industry. The sharp rise in oil revenue in Iran can be atributed to the changes in the profit sharing as much as the rise in prices. Certainly, OPEC has enjoyed an oligopolistic profit during the 1970's. This change in the structure of the market was important to the Iranian government, since the consortium has been the main buyer of the Iranian crude oil, that is, around 100 percent in 1957, 95 percent in 1968 and 92 percent in 1976 were produced from the consortium oil fields (table 8-2).

However, along with bargaining against the consortium, Iran has been developing new oil fields with deferent oil contracts. Although NIOC officials claim that the non-concessionary contracts (joint venture and service contracts) are the most favourable to Iran, experts believe that from the revenue point of view, these contracts do not provide a better output[26]. Practically, as table (8-3) shows the per barrel disposable revenue accrued to the Iranian government from the consortium is far higher than that of joint venture contracts. However, it is believed that the non-concessionary contracts are used for political purposes. They serve this purpose by reducing the dependence of the Iranian government on the consortium, however limited.

8-1-2 Oil Price System

One of the most important problems which the international oil industry has been faced with is the determination of oil prices. Since the early exploration and development of oil resources in the USA, the price of crude oil has been determined under special conditions affected by the peculiarity of the oil industry and the structure of the market. The very heavy fixed capital involved in this industry, which makes the average cost far higer than the marginal cost of production[27], and the specialized knowledge owned

Share Of The Oil Companies In Oil Production For Selected Years

Table (8-2)

Percentage

	1957	1961	1968	1972	1976
Consortium	99.4	99.2	95.1	91.0	91.9
SIRIP	-	0.2	0.6	1.3	0.5
IPAC	-	-	3.6	4.0	4.8
IMINCO	-	-	-	1.9	0.9
LARCO	-	-	0.4	1.5	1.3
NIOC	0.6	0.5	0.3	0.3	0.6
Total	100.0	100.0	100.0	100.0	100.0

Source : Plan and Budget Organization, Statistical Year Book, 1968 and 1976.

Per Barrel Disposable Revenue Received By Iran, 1968 - 1973

Table (8-3)

cents

	1968	1969	1970	1971	1972	1973
Consortium	80	85	83	123	133	164
SIRIP	22	22	22	25	28	24
IPAC	40	33	28	51	75	88
IMINCO	-	24	31	39	66	106
LAPCO	18	29	52	89	100	144
NIOC [1]	140	200	174	182	200	384

Note : 1- Includes the oil exported by Partners, NIOC's exports of partnership crude, and an estimation of the worth of barter trades . Not comparable to the other operators.

Source : Fesharki, F. , Development Of The Iranian Oil Industry, p. 87.

by the oil companies, have brought about the necessary condition for the oil companies to claim for a higher rate of return to capital than the current supply of capital would have allowed for[28]. These conditions, coupled with the oligopolistic market in the crude and oil products enforced by the horizental and vertical integration have resulted in the determination of oil prices at a level far above the marginal and average cost of production. So long as the USA was the main producer, the price of crude oil was determined by the pattern of domestic demand and with regard to the oligopolistic structure of the oil market, as explained above. In this respect the export market was an extension of the domestic market in which the price of crude oil was equal to the price in the Gulf of Mexico plus the freight charge (called the Gulf of Mexico plus).

However, the gradual development of oil resources in the Middle East which enjoys an extra-ordinary low cost of production brought the price system to a shaky position by 1948 when the Middle East oil production was begining to dominate the export markets. Since, prior to War World II, the US and Caribbian accounted for about 77 percent of production(declining from 90 percent during the 1920's) and 65 percent of oil exports in 1939, the absorption of a small percentage of Middle East oil in the world market (less than 5 percent), without affecting the dominated price system was possible[29]. The price of Middle East oil was determined as if it was exported from the Gulf of Mexico; plus the freight charge from the Gulf of Mexico[30]. This provided the oil companies with an extra-ordinary profit margin. They, also, received an extra profit if the freight charge from the Gulf of Mexice to the destination was higher than the Persian Gulf to the same consumption market (phantom freight). On the other hand, if the point of export was more distant from the point of destination than was the Gulf of Mexico, oil companies had to accept the loss (freight absorption)[31]. Naturally, in this

way, the 'difference of origin' determined the geographical limits in which the Middle East oil could be delivered to the consumption markets and enjoyed a phantom freight; practically, the border was'Europe West of Italy'[32]. Therefore, the expansion of Middle East oil would have resulted in breaking down the price system. However, there are some reasons to believe why Middle East oil was not expanded rapidly and was not sold at a competitive price. First, the fixed capital involved in the exploration and development of Middle East oil was larger than the average fixed capital dominated in the oil industry at the time and the degree of riskiness was believed to be higher. Therefore, a higher rate of return to capital should have been ensured in order to stimulate the necessary investment for development of new oil fields[33]. Secondly, since the international oil industry has been dominated by a few large oil companies, the oligopolistic structure of the market has allowed the oil companies to maximize their profits from their different sources by slowing down the development of Middle East oil resources with low cost of production[34].

However, during 1939-45, the British Admiralty which received the oil consumption needed for its Fleet in the east of Suez Canal from the Persian Gulf, was unwilling to pay a price that contained a phantom freight. A similar problem was discussed between the American Navy and the American oil companies which were producing in the Persian Gulf[35]. This resulted in the elimination of phantom freight and the domination of the Persian Gulf as a new base point. Still the Persian Gulf f.o.b. price of crude was determined at the same level of the Gulf of Mexico and the equalization point remained at the port of Naples. So long as the base price in the Persian Gulf remained identical to the base price in the Gulf of Mexico, Middle East oil could not be delivered to a destination west of watershed, unless freight absorption was practised.

With the expansion of Middle East oil which accounted for around 32.3 percent of exports in 1947 (table 8-4), Middle East oil had to be delivered to the west of the watershed. This was possible either by absorption of a large freight differential or by reducing the f.o.b. price of Middle East crude. By choosing the price reduction, the oil companies passed on some of the cost of competition to the producing countries (see, also p486). In this way, Middle East crude could move to the west of watershed and the equalization point moved to London. The difference between the f.o.b. price of crude oil at the Gulf of Mexico and that of the Persian Gulf was around 46 cents per barrel. In July 1948, the US government ceased the oil exports to Europe and Middle East oil came into competition with the Carribbean oil which enjoyed a lower cost of freight to Europe. It resulted in a further reduction in the Middle East crude from $2.22 in March 1948 to $2.03 in July[36].

Due to the very low cost of production and the rapid expansion of oil exports, the equalization point moved to New York and the f.o.b. price of the Persian Gulf was reduced from $2.03 to $1.88 and later to $1.75 per barrel in 1949. The gap between f.o.b. price of the Gulf of Mexico and that of the Persian Gulf was widened from 46 cents in March 1948 to 91 cents in July 1949[37]. Middle East oil, having reached the largest consumption market (the USA), the price movement of the Middle East crude became subject to the US market and to the changes of the US Gulf price in timing and direction, with minor differences in extent[38]. By the end of 1950's, a price weakness began to develop and the equilibrium between the three sources of oil was broken. The cause of this development is attributed to two factors. On one hand, the export availibility of crude oil both in Venezuala and the Middle East was growing. This led the producers to seek new markets for their surplus production and for long term contracts which caused deviation from the established price level. On the other hand, the US market was no longer able to absorb the growing surplus of oil production. This decreasing tendency in

World Oil Exports By Major Exporting Areas

Table (8–4)

Percentage

	1938	1947	1955	1960	1965	1970	1973	1975	1976
North America	30.4	12.8	6.2	2.4	1.2	3.9	4.6	3.3	2.4
Carribbean[1]	35.0	54.6	33.8	29.1	21.5	13.1	11.4	10.5	9.6
Middle East	15.5	32.4	50.2	53.6	50.4	50.5	58.5	61.0	60.8
Africa	-	-	-	2.2	11.9	22.8	16.3	14.4	15.4
Rest of the World	19.1	0.2	9.8	12.7	15.0	9.7	9.2	10.8	11.8
Total Export[2]	1740 (100.0)	1775 (100.0)	5940 (100.0)	8810 (100.0)	15110 (100.0)	25600 (100.0)	34185 (100.0)	30335 (100.0)	34300 (100.0)

Note- 1 - 1970–76 figures cover Latin America as a whole.

2 - Thousand Barrels Daily

Source: B.P., Statistical Review of the World Oil Industry, 1965 and 1976.

demand for oil was reinforced by the US government policy in 1959 which introduced a ceiling to the quantity of crude that could be imported[39]. These factors, to some extent, reduced the importance of New York as an equalization point. The break-down of the internationally based point system resulted in the rapid reduction in price of the Middle East crude from $2.08 per barrel in 1957 (the rise relative to 1953 was due to the first Sueze Crisis) to $ 1.80 in 1960.

The price reduction of August 1960 brought the oil producing countries together to stand against the falling prices. Although OPEC was not able to restore the pre 1960 posted prices, it was successful in stabilizing the oil prices for a decade. Therefore, a widening divergence developed in world markets between the posted prices and the actual or realized prices. The posted prices became a floor to the per barrel revenue of host countries. Despite this diversion between posted and realized prices, the oil companies were still able to obtain some discount off the posted prices from individual producing countries. This may indicate that an indirect link between the realized and posted prices existed and the continous decline of realized prices was, to some extent, offset by the discount posted prices.

This situation was largely a sign of growing competition in the international oil industry due to the discovery of new oil fields and the emergence of new comers in the international markets[40]. However, it was not the actual supply of oil in excess of demand which caused the declining trend in oil prices, but, the rising of potential oil reserves which could be produced by new comers independently from the major oil companies. The independent companies reduced the degree of concentration and control which existed in the international markets. The major companies who were not assured about the price behaviour of the market had to follow the comeptition in the international markests[41]. Another feature of independent companies is their weakness to stand against the threat of the government of producing nations for

rising of posted prices. This is particularly so because they have access to a limited source of oil supply. Therefore, any threat to them means being in or out of international business[42].

This instability in the price system which developed throughout the 1960's coupled with the growing importance of the Middle East and North African oil in the international exports (accouted for 67 percent of oil exports) brought about the necessary condition for a change in the structure of oil markets. First, the Middle East and North Africa were coming to be the leading oil exporters and, therefore, the price in the world market was coming to be set by prices in the Middle East and North Africa. Second, OPEC became stronger and was able to control the price movements and gradually eliminate the price differential among its members. Any increase in the price received by one of the producing nations became a base for other producing countries to claim for the same price. In other words, the structure of the market was moving toward a domination of oligopoly of sellers. Also, later (in 1970's), the elimination of differences in delivered prices, at any given point of destination, regardless of location and costs of the sellers, can be interpreted as a return to the base point system, but, this time in the Middle East.

Under these conditions, in 1970, the first increase in the posted prices occured after a demand of the Libyan government for 40 cents rise per barrel from an independent oil company[43]. This was followed by the Middle East producers. In 1973, after the Arab-Israel war, and the oil embargo by Arab producers, a sharp increase in oil prices shocked the world economy. Although, the temporary reduction in the oil production (about 30 percent) of Arab producers affected the total supply and brought about a temporary oil shortage which resulted in the increase in oil prices, the oil producers have been able to maintain the same level of prices for several years since 1973.

This indicates that the increase in the prices has been due to the change in the structure of the oil industry, and the 1973 embargo has only accelerated the process.

The development of the structure of oil markets shows that there has been a move from oligopoly of buyers (up to 1950) to the effective competition[44](1957-72) and oligopoly of sellers (since 1973). Prices, as determined under each market structure, have benefited the Iranian government differently. At the time of buyers domination; the Iranian government could have received a higher rate of rent for exploitation of its oil resources than that it received under effective competition. However, although the oil companies enjoyed oligopolistic prices, due to the oligopolistic structure of oil market during the pre-war period, the Iranian government did not receive a proportional share of oligopolistic rent. Up to 1933, the royalty was linked to the company's profits and, therefore, one should expcet the government of Iran to benefit from the high level of prices. But, practically, the APOC undermined the share of the Iranian government, during 1920's, either by practising a lower price for inter-companies transaction and allowing for large share of profit to down-stream activities or by selling oil to the British Admiralty, which was an important consumer, at a lower price than prevailing in the market that is as low as 10s.6d. per ton fluctuating between 1 and 2 shillings (or US $0.20 and $0.40) per barrel as against market prices fluctuating between 4½s. and 12s. (or $0.90 and $2.43) per barrel[45].

During 1933-50 when the tonnage royalty was practised in which the price was fixed, the price changes in the international oil markets had no effect on the revenue of the Iranian government. Since the tonnage royalty was a common practice at the time, the oil companies including the AIOC received almost all the benefits from the raising of prices during 1945-

49 (in particular) and not the host countries in the Middle East. The growing gap between the realized prices and 4 shillings royalty payment made a diversion from the 50-50 profit sharing which was meant to be the case in the early 1930's when tonnage system had been introduced. By 1948, the share of host countries was much lower than it was in the early 1930's.

Therefore, the introduction of 50-50 percent profit sharing system, in the early 1950's, was to ensure the same profit sharing priciple as that of the early 1930's and it was not an increase in the share of host countries from the oil revenue. Another factor which assissted such a change in the profit sharing was the calculation of tax liabilities in the Western countries which allowed the payments to producing countries to be credited against the companies domestic tax liabilities[46]. Due to this tax consideration, the increased payments to the host countries (British companies receive a lower tax credit than the American companies), were entirely offset by tax credits in their parent countries. The 300 percent increase in the per barrel receipts of producing countries in the 1950's cost the oil companies only 7 cents. This may pose a question; if the cost was so low, why did the American companies not introduce the 50-50 profit sharing earlier while they had been able to receive the above tax credit since 1939? Mikdashi believes that the reasons might have been " (a)- their (companies') reluctance to seek a change in the fiscal terms of concessions lest this might render their contracts subject to 'unwelcome' changes introduced by host governments, (b) their uncertainty as to their full eligibilty for income tax credit in the USA, and (c) the absence of income tax legislation in host countries...."[47]

Although these factors have their practical importance, one may argue that one reason for change in the profit sharing system was the change of the structure of the market toward the effective competition. Looking at the time when the Gulf of Mexico plus system was abandoned, under pressure of market forces and the US government control of prices, in 1948-9 and the

time of introduction of 50-50 profit sharing (1948), one may deduce the existence of a relationship between these changes in the oil industry. Taking into account that the oil companies would consider a long-run profit maximization, the 50-50 profit sharing system may have been considered as the most favourable profit sharing system in which the changes of prices under competition can be passed on to the producing countries. Therefore, having anticipated the coming competition and falling of oil prices, the major oil companies secured their profit margine through the profit sharing system in which the price of crude oil paid to the producing nations could be changed accordingly. In this respect, producing countries complained, several times, about the companies unilateral decision of changing posted prices[48]. Also, during the early 1950's, a discount rate of 15 to 25 percent of posted prices for the expansion of exports was a common practice by oil exporting countries. Iran permitted volume discounts of 5 to 10 percent off posted prices for a few years beyond the other until 1960[49]. These examples show that the oil companies have well been able to pass on the falling of prices to the oil producing nations during the 1950's and early 60's when an effective competition came to exist.

Only during the 1970's, producing countries, along with the change in the structure of oil industry which was also enforced by a few psychological factors such as warning about the world energy shortage in future[50], have enjoyed a high price for their oil resources. In 1973-4, OPEC changed the posted prices on unilateral decision and raised the prices from $2.48 per barrel in 1972 to $11.65 in 1974 which has, more or less, remained unchanged[51]. Since the posted prices have no relation to its cost of production, the main criterion used by OPEC to set the prices has been the 'tolerance of consumers' as Monroe and Mabro have put it[52]. However, it does not mean that the rise of posted prices may be against the interest of oil companies, on the contrary, as far as the oil companies are able to maintain their profit margin,

the rises of prices will benefit them as well as producing nations. Since oil products enjoy a low price elasticity, in the short-run, a sharp increase in prices can be largely passed on to consumers.

8-1-3 Oil Exports and Oil Control

As in the case of price determination, up to 1972, Iran, as with other oil producing countries, was not able to determine the quantity of its oil exports. However, one thing is certain, the Iranian government has always been trying to encourage the oil companies to increase its oil exports and there is no one single case which shows the opposite intention.

During the early development of the oil industry, at the time when Iran was a share holder of APOC, the Iranian government complained about the APOC's investment policy which allocated a large share of capital to exploration and development of oil fields in neighbouring countries while Iran's oil fields still needed to be developed[53]. The APOC's investment policy should not be regarded on the basis of the prorationing program or the cost differential, but, the reason was that, in this way, the APOC could reduce its dependence on Iranian oil production and the political risk of being involved in one country only.

During the 1933-50 period, the tax concession for the excess of 6 millions tons per year shows that the government encouraged the oil exports. Similarly, during 1954-60 and even up to 1968, the Iranian government used a discount off posted prices in order to raise its oil exports. It is only since 1960 and particularly 1968 that OPEC has been able to cease the price competition among its members and has abolished the discount for encouraging oil exports.

Although OPEC has successed in ending the price competition, it has not been able to control the quantity of exports. In the early 1960's, Vene-

zuala which suffers from a higher cost of production, proposed a prorationing of production in order to raise the posted prices. This proposal was neither accepted nor rejected[54]. Apart from its practical problem of finding a formula for determination of the share of each exporting country in the world export market, it could have reduced the total revenue received by each country. Since the raising of total revenue was the government's target, the Iranian government in particular could not accept any prorationing scheme which might have resulted in the decline of its revenue. For a similar reason (that is, raising of the total revenue) and also by not being able to manipulate posted prices, the Iranian government granted the discount off the prices as much as the rising of exports could increase its total revenue.

However, evidence shows that government pressure on the oil companies to raise the oil export had little effect. The major oil companies were able to control the growth of oil production according to the predicted changes in the industry supply/demand conditions, and to determine the share of different producing nations. As J.M.Blair has shown, the actual annual growth of oil production in Iran during 1958-72 was almost the same as that predicted by the oil companies for this period, that is around 12.5 percent annum[55]. One reason for the failure of the Iranian government's attempt is that since other producing countries tried to increase their exports, the pressure on the oil companies from different countries balanced each other out. In other words, an increase in the oil production of one country must have been offset by a decrease in the other which was not acceptable to any producing nations. However, Iran, still enjoyed a higher rate of production during the period 1958-72 than other producing countries due to "... the desire of US government to build Iran as a bastion against Communist influence...."[56]

During the 1970's, at a time when the oil prices have been determined unilaterally by OPEC, practically, the control of oil production and the determination of the share of each producing nations in the total supply has

still remained in hands of oil companies who have dominated the oil refinery market. Except for a short period (when there was a price differential among the producing countries and expected changes of prices), the share of producing nation in the total export has remained, more or less, unchanged. However, due to the price effect, the total demand for oil decreased by 1975 and the rate of growth of production was negative. Although since 1975, the rate of growth of production has been positive, it has been lower than previous decades. This may suggest a change in the pattern of demand for different sources of energy in which oil is losing its supriority as a cheap source.

No matter what the prospect of the oil industry will be (this will be discussed in the following section), the above explantion of the development of the price system and the encouragement of oil exports show that the Iranian government has never had a long-term plan for the exploitation of oil resources and that oil has not been considered an exhaustible resource. The main determinants with regard to both oil prices and oil exports have been the structure of the international oil market and the pattern of demand. The Iranian government has never made any attempt to limit the rate of exploitation in order to conserve the resevoirs for future production, and no long-run price protection or rate of discount for future revenue have been used. The reason for this emphasis on the short-run target should be sought in the political nature of the state rather than merely as an economic need. In this way, the government has provided the middle classes with a high consumption in order to attract their support.

Not having a long-run plan for the exploitation of oil resources, the future revenue of the Iranian government will be determined by the possible changes in the structure of demand and price sytem rather than by a specified policy.

8-1-4 Prospect of Oil Revenue

The development of the oil industry with regard to the above three aspects, host-companies relationship, price determination and control of exports may give an insight into the future of the oil industry in Iran. Any possible progress in these three aspects would make possible the increasing of oil revenue in the future.

As far as the host-companies relationship is concerned, one may speculate and say that the Iranian government may not be able to increase its revenue by taking over other aspects of the international oil industry, refining and marketing. The oil companies from the begining of their international oil business have successfully tried to secure a long-run supply of oil to consumer nations by seperating the production stage from the refining process. Apart from the economic advantage (creating more jobs and higher incomes), having experienced an event such as the 1951-3 nationalization of Iranian oil industry, the oil companies moved their refineries to the more secure areas and particularly Western countries. While in 1947 with 37.1 Million tons oil consumption Western countries were able to supply only 30 percent of oil products from their refineries, by 1966 not only have they been able to meet their domestic demand, but also, some of products have been exported (table 8-5). Consequently, the oil companies, by limiting the profit sharing to the production stage and moving the refineries out of producing nations, have been able to secure the refining and marketing from any parctical claim from the oil producing nations. Particularly in marketing, the producing countries have had no success. Although Iran and Iraq could have taken 12.5 percent as their share of royalty in kind, practically, their shares have been marketed through oil companies. In the late 1960's, Iran was able to export part of its share to East Europe on the bases of barter trade, but it has never been successful in the Western markets. How-

OEEC's Consumption and Refinery Output of Petroleum Products

Table (8-5)

Million Tons

	1947	1950	1954	1966[1]	1976[1]
Consumption(1)	37.1	55.0	86.8	425.6	706.4
Production (2)	10.9	36.8	88.7	481.0	1055.0
Ratio of 1/2 %	29.4	66.9	102.2	113.0	149.3

Note- 1- 1966-76 includes Western Europe.
Source: OEEC, Oil, the Outlook For Europe, Paris, 1956,PP. 11 ans 78; B.P., Statistical Review of the World Oil Industry, 1976.

World Primary Energy Consumption By Source (Percentage)

Table (8-6)

	1913	1929	1937	1949	1954	1960	1966	1970	1973	1974	1975
Coal and Lignite	90	79	74	62	55	51	39.7	33.5	30.1	30.6	30.4
Petroleum	6	16	20	26	31	33	37.9	42.6	45.8	44.7	44.6
Natural Gas	2	4	5	10	12	14	16.2	17.8	17.8	18.0	17.6
Hydro-electricity and Nuclear	2	1	1	2	2	2	6.2	6.1	6.3	6.7	7.4

Source: Issawi and Yeganeh, The Economics of Middle Eastern Oil, 1962, P. 5, Table(1); B.P., Statistical Review of the World Oil Industry 1976 and 1977.

ever, under these restrictions, the problem is not the same as that of the production stage that is to say, the question of legality, but it needs an undertaking of substantial new investment in the field of oil refining and marketing. Since 1968, the NIOC has tried to develop its own refinery and marketing by taking part into new ventures with different consumer countries or oil companies, but, except for two cases (Madres and Sassolburg refineries), it has withdrawn from the down-stream activities. The main reason has been the failure of the NIOC to guarantee a long-run supply of crude oil to those refineries. The above shows that Iran may no longer be able to increase its oil revenue, at a significant level, through taking part in the down-stream activities[57].

As far as the second aspect of our analysis is concerned that is the possible price changes, the case is not as clear as the first aspect. Although oil prices in the short run may be determined by tolerance of consumer nations, in the long run the oil prices are determined by the pattern of demand for different primary sources of energy and technological changes. Looking at the demand for primary energy shows that during 1930-73, solid fuels have rapidly declined from 90 percent in 1913 to 30.1 percent in 1973 (table 8-6). There are two main reasons for such a rapid replacement. First, oil in particular has been a cheap energy; and secondly, it has a technological superiority which can be used as fuel for transport facilities. Since 1973-4 when the oil prices increased by 400 percent, the gap between the cost of oil to consumers and the cost of gasification and liquidfication of coal and oil shales has been narrowed. Considering the technological progress in this respect, one may speculate and say that possible increase in oil prices in a long run should be insignificant.

In the short run, both economic and political factors may affect the structure of price system and determination of oil output. As far as the

economic factor is concerned, the effect may appear in a form of a reduction in the total demand for oil and/or an increase in supply of oil from the secured areas (Western Europe, Canada and the USA). The experience of 1973-75 shows that despite of low price elasticity of demand, in the case of a sharp increase in oil prices, in the short run, consumer countries are able to reduce, to some extent, their demand for oil. Also, the high price of oil allowed the oil companies to raise oil production or to develop new oil fields in the secured areas which mostly suffer from the high cost of production. However, since these effects are marginal, they may affect the total revenue of the main producing nations only to a limited extent. Further more, since the total revenue may no longer be a financial target for a country like Saudi Arabia, a slight decrease in the demand for oil may not force main oil producing countries to enter into a price competition and break existing oligopolistic structure of the oil market. Therefore, if the producing nation decides not to increase the oil price in the short run, the reason will largely be political rather than a demand/supply condition.

If we assume that there is a strong link between some of the governments of producing nations (like Saudi Arabia and Iran) and Western countries, due to the ideological, political and economic common interests, this linkage would limit the possible increase in the oil prices, at least, as far as the moderate members of OPEC are concerned. So called militant members may follow Saudi Arabia and Iran, the largest oil producers, otherwise, they may face a loss in their total revenue due to the effect of price differential among the producing countries. Therefore, even in the short run, one may not expect a significant price increase in the oil market. At least, during 1975-78, OPEC has not raised the oil prices.

Having seen no significant changes in Iran-oil companies relationship and the oil prices, the possible increase in the oil revenue will be dependent on the growth of oil production. However, in the long run, demand for

oil and thereby the growth of oil output will be affected by the technological progress in other source of energy, but, for each individual producer, it also depends on its proved reserve of oil. It is anticipated that Iran will only be able to produce at the existing level of production (around 6 Million barrels per day) until 1985 and by 1995 will be out of the international market and will be able to produce only for its domestic market[58].

The above explanation indicates that no longer can we speak about oil revenue growing at a significant rate and one may expect the oil revenue to fade away from the Iranian economy in less than a decade if the prediction is correct.

8-2 Effects of the Oil Sector on the Iranian Economy

In the above section we have seen that the Iranian government has not used any criterion for the exploitation of natural resources, which has resulted in the over-depletion of oil resources. In the absence of a long-term policy and due to the government's effort for increasing its share from the oil revenue, the degree of dependency of the Iranian economy on the oil sector has been growing. This growing dependency has been created through three different effects of the oil sector on the economic development of Iran: First, a direct effect through forward and backward linkages; second, an indirect effect or fiscal effects; and third, the overall effects.

8-2-1 Direct Effects

Any investment, through its linkages or intersectoral transaction, can induce new investment or stimulate the growth of production and employment in other sectors. The more integrated one sector to the whole of the economy, the higher will be the multiplier effects. These effects which spread throughout the economy by the forward and backward linkages have relatively insignificant effects in the case of investment in the oil sector. Despite

the relatively high capital involved in this sector, due to the nature of the industry, the oil sector has entirely remained isolated from the rest of the economy. This isolation is important in the demand-induced effects while the supply-induced influence has provided the economy with a low cost oil and has induced new investment in the industrial sectors.

Forward Linckages

From the early development of the oil industry, oil refining expanded largely for export purposes. Util 1950, Abadan Refinery was one of the most important and the largest refinery in the Middle East which provided a large range of products for export. Domestic markets for oil products was almost non-existent and the lack of road system linking the Persian Gulf to the Centre and North of Iran made the development and capturing of domestic market very costly and difficult. The APOC had to export oil to the neighbouring countries (Iraq and Pakistan) by the sea-link or roads and, then, import oil products from the western and eastern borders of the country[59]. The North of Iran was still provided with imported oil from Russia[60].

The gradual improvement of road systems has resulted in the lowering of distribution costs and the expansion of the domestic market for oil products since 1950. The domestic demand for oil products and natural gas has rapidly grown. By 1960, oil and natural gas accounted for 81 percent of the total demand for energy and in 1972 they accounted for 90 percent (table 8-7). Apart from the expansion of final demand, the expansion of the industrial sector was also an important factor for growing demand for oil products. The share of the industrial sector and electricity in the total demand moved up from 27 percent in 1960 to 31 percent in 1969 and 35 percent in 1974 (table 8-8). Although the industrial sector has benefited from low cost fuel, this should not be interprted as an incentive for the expansion of the industrial sector and the supply-induced influence of the oil

Consumption of Primary Energy In Iran (Percentage)

Table (8-7)

	1960	1962	1964	1966	1968	1969	1972[1]	1977[1]	1982[1]
Petroleum Products	63	66.3	70.0	71.7	74.9	74.5	72.9	63.5	61.6
Natural Gas	18	16.7	15.7	15.8	13.8	13.6	17.4	26.3	32.3
Wood&Charcoal	11	9.7	7.2	5.7	4.3	3.4	2.4	1.2	0.7
Animal Matter	5	4.4	3.5	2.6	1.9	1.7	0.7	0.4	0.2
Coal	3	2.4	2.0	2.1	1.7	1.6	1.1	1.4	0.9
Hydro-electricity	0	0.5	1.6	2.1	3.4	5.2	5.5	7.2	4.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note:1-Forcast.

Source: Plan and Budget Organization, Statistical Year Book, 1973 and 1976.

End-Use Analysis of Petroleum Demand In Iran (Percentage)

Table (8-8)

	1960	1965	1969	1974[1]
Residential and Commercial	40	37	34	31
Electricity	6	6	8	8
Industry	21	22	23	27
Government	1	2	2	2
Agriculture	1	5	6	8
Road Transport	24	22	21	20
Aviation	2	3	3	2
Rail Ways	2	1	1	1
Oil Company Use	3	2	2	1
Total End-Use	100.0	100.0	100.0	100.0

Note:1- 1974 figures are estimated.

Source: Fesharaki,F.,Op.cit., P. 251.

sector. However, the main reasons for such a rapid expansion of demand for oil have been cheap prices (in particular), the rising of per capita income and the expansion of the industrial sector.

In order to meet the growing demand, Kerman-Shah Refinery was constructed for the purpose of suppling the local market and was taken over by the NIOC after 1954 consortium. In 1968, the Tehran Refinery and in 1973 Shiraz Refinery started their production for meeting the dometic demand. Also, Abadan Refinery which has lost its importance in the export of oil products has been as a 'balancing-refinery' for Iran's domestic products requirement.

Of special importance among the supply-induced influences in the 1960's and 70's has been the activity in the field of petro-chemicals. The low cost of input has encouraged the government to allocate a large share of public investment to petro-chemical industries. These investments have been undertaken in the form of joint ventures with foreign investors and for export purposes. Although the domestic market has also been considered, the limited size of the market makes the success of the projects dependent on the international market. Since they have not reached the export level, their importance is not yet known. However, by 50-50 partnership with foreign investors, the government has tried to guarantee the success of projects by relying on the know-how of the foreign partners and their awarness of the international markets[61].

Altogether, it can be argued that the supply-induced effect of oil industry has been limited, even in the post-nationalization era. The nature of industries induced by low cost inputs, mainly petrochemicals also limits the existing linkage to the oil industry and imports. Therefore, the effect cannot be spread throughout the economy by the intersectoral transaction. However, the cheap oil has created an 'oil-oriented' sector which is isolated

from the rest of the economy.

Backward Linkages

Considering that contrary to the manufacturing sector in which the the backward linkages may become predominant, in extractive mineral and particularly oil industry, the backward linkages are far more insignificant than its forward linkages. One may assume that the backward linkages are almost non-existent. The very insignificant demand-induced influence of the oil sector or the 'oil-oriented industries', not only has been due to the nature of the industry, but, also, in the case of Iran to some extent, have been affected by government policies.

However, the demand of the oil sector for goods and services provided by the national economy can be divided into : First, demand for capital goods required for the expansion of industry; second, demand for current requirement of the oil industry; and third, demand for manpower for operating and the expansion of the oil sector.

As far as the first effect is concerned, it is clear that the backward linkages have been particularly weak. The oil industry is very capital intensive and with the technological progress in this field and raising of the degree of automation, the degree of capital intensity has been rising over time. Naturally, an industrially backward economy like Iran has not been able to provide the capital requirement of the oil sector. More importanty, the government has made no attempt to encouage the oil companies to produce some parts of their capital needs in Iran. From the early development of the oil sector, the oil companies have imported their capital requirement free of custom duty. Taking into account the low degree of efficiency and competitiveness of infant industries, the oil companies would not have been induced to undertake the investment in capital goods industries without necessary protection. This can be regarded as a wrong policy commonly

used by developing countries with regard to foreign capital. During 7 decades of development of oil industry, apart from Ahvaz Pipe Mill constructed in 1968, the effect of oil industry demand for capital requirements has been limited to the spill-over effect from the import machinery in so far as the installation of the machinery has created the demand for domestic building materials, resources and labour. Even in this respect, the AIOC imported the building material like cement and other raw materials which were also produced in Iran[62].

The second effect is the demand-induced influence of the oil industry's current requirement which is far more important in so far as the impact of the expasion of the oil industry on the national economy is concerned. The current requirement usually contains consumer goods which are utilized in non-basic services for companies' employees such as in housing scheme, clubs and stores of the companies. From the early development of the oil industry, the Iranian government has been aware of the possiblity of raising the degree of integration through the oil industry's demand for the non-basic services. In order to encourage the backward linkages, the 1901 concession, in article 7, limited the free-duty imports of oil companies to those items 'necessary' for the working of the concenssion; and consumer goods were subject to import duties. In practice, the APOC always undermined article 7 and embarked on abuses of its customary privileges[63]. Also, the 1933 concession specified the duty-free imports in more detail. However, neither of the concessions obliged the oil companies to purchase from the domestic market, nor the companies' imports of consumers goods were subject to the import restriction, although they were subject to custom duties. Since there was no obligation for the oil companies to purchase from the domestic market, the companies would have resorted to the domestic market only if prices had been lower than in the international markets. As one study shows, the overvaluation of Rial during 1930's made it profitable for the AIOC to import consumer goods

(including textiles, food, bevergases and so on)[64], in order to sell to its employees, at less than prevailing local prices[65]. Therefore, a wrong exchange policy and the foreign control of the economy, to some extent, explains the rising of imports by the oil company during 1936-9 and the failure of the oil industry to integrate into the rest of economy.

In the 1954 oil contract, the Iranian government has sought a closer integration of the oil sector with the indigenous economy. First, it spelled out its policy in article 34(c) which specifies that in those cases where quality, price and availiblity are equal, the Iranian oil industry should meet its requirement from Iranian rather than foreign supplier. Second, the non-basic services have been undertaken by the NIOC which has given the government a flexibility in the application of its policy[66].

However, in practice, as table (8-9) shows there has been no considerable improvement in the total purchase of oil sector for its non-basic requirement. Figures for the 1961-68 period remained, more or less, unchanged. From the total purchase, on average, only 11 percent was domestically produced. When purchases by sources are considered, on average, the NIOC shows a slightly higher tendency toward domestic products, that is, 14 precent of its purchase compared to 10.4 percent for the consortium (table 8-9). But, in neither case a clearly tendency toward domestic products can be seen. The reasons for the low demand for the domestic products may be different for the consortium and the NIOC. Probably, the consortium would seek the price differential in the international market. Also, their close link to their parents' countries would limit their purchase from the dometic market. Considering that most of consumer goods are produced domestically, the NIOC as a government body should show concern about its expenditure policy. But, the luxury fetishism which is one of the common charactristics of governmental companies and Ministries in Iran and,more importantly, the availibility of foreign exchange and the priority given to the government's bodies may

Value of Purchases by Oil Companies, 1961-68

Table (8-9)

Million Rials

Year	Internal Purchases: Domestic Products: NIOC (1)	Internal Purchases: Domestic Products: Consortium (2)	Internal Purchases: Imoprted Products: NIOC	Internal Purchases: Imoprted Products: Consortium	Foreign Purchases: NIOC	Foreign Purchases: Consortium	Total: NIOC (3)	Total: Consortium (4)	Ratio Percentage 1/3	Ratio Percentage 2/4	Ratio Percentage 1+3/2+4
1961	57	535	33	72	439	3640	531	4247			
1962	92	485	36	37	361	3558	489	4080			
1963	95	438	60	102	357	2450	512	2990			
1964	106	420	48	2051	412	3029	566	5500			
1965	148	493	57	1411	464	7527	669	9431			
1966	107	507	61	1378	736	1883	904	3768			
1967	153	538	69	2344	998	1983	1220	4865			
1968	188	693	108	1758	877	1860	1173	4311			
									14.0	10.4	11.0

Source: National Iranian Oil Company, Commercial Section, Annual Report, 1968, PP. 78-79.

have reduced the demand for domestic products which may not be of high quality or at competitive prices. The above pattern of demand indicates that with the very low and stagnant demand for domestic products the oil sector will remain isolated from the indigeous economy.

The third demand-induced influence comes from the oil industry's needs of manpower. The capital intensive nature of this sector, not only has limited the number of employees of the oil sector relative to capital involved, but the raising of degree of automation at the international level has resulted in gradual replacement of labour by capital.

In the pre-nationization era when the construction of Iranian oil industry was under way, needs for the infrastructural investment and development and instalation of machinery created a relatively significant growth in the number of oil industry's employees. The level of employment moved up from 17783 persons in 1939 to 67884 in 1951 (table 8-10). Although around 80 percent of the total employment in the oil sector were Iranian, the opportunity for Iranians in senior managerial jobs was very small. According to ILO figures, only 9 percent of Iranian employees were among salaried-staffs, the rest were wage earners. Among the salaried-employees, the number of 'graded'(high-ranking) Iranian was about one third of the British staff. There were no Iranians assigned to top mangerial positions within the company[67]. With the above hierarchy in the oil sector, with the total control of top managrial jobs by the British, and masses of unskilled Iranian workers at the bottom, the level of employment in the oil sector was very sensitive to the AIOC general policy with regard to the profit maximization policy for its different affiliates and the investment-security consideration. Since, up to 1951, the control of the AIOC remained in the hands of the British, the pressure of the Iranian government on the AIOC was almost ineffective. Although the Iranian government in the 1933 contract emphasised on raising the number of Iranian employees in the oil sector, it did not determine any specific ratio between

Employment in the Iranian Oil Industry 1939-51

Table (8-10)

Persons

Year		Iranian	Non-Iranian	Not Specified	Total
1939		15060	2723	-	17783
	%	(84.7)	(15.3)		(100.0)
1945		21781	4038	12143	37954
	%	(57.4)	(10.6)	(32.0)	(100.0)
1949		32011	4477	16410	52898
	%	(60.5)	(8.5)	(31.0)	(100.0)
1951		50662	4271	12951	67884
	%	(74.6)	(6.3)	(19.1)	(100.0)

Source: Amuzegar and Fekrat, Op.cit., P. 27; Fesharaki,F.,Op.cit.,P.22.

Employment in the Iranian Oil Industry and Productivity for Selected Years

Table (8-11)

Persons

Year	Productivity Cube Meter	Staff			Manual Labour	Contractors	Total
		Iranian	Foreign	Total			
1955	-	6867	85	6952	48222	78	55252
	%	(12.4)	(0.2)		(87.3)	(0.1)	(100.0)
1958	770	8139	693	8832	48477	4724	62033
	%	(13.1)	(1.1)		(78.2)	(7.6)	(100.0)
1960	1050	8544	838	9382	45646	3206	58234
	%	(14.7)	(1.4)		(78.4)	(5.5)	(100.0)
1964	2300	9889	474	10363	31613	727	42703
	%	(23.2)	(1.1)		(74.0)	(1.7)	(100.0)
1967	3570	11071	454	11525	29642	1052	42219
	%	(26.2)	(1.1)		(70.2)	(2.5)	(100.0)
1972	7200	14228	462	14690	25632	507	40829
	%	(34.9)	(1.1)		(62.8)	(1.2)	(100.0)
1976	5720	22437	1255	23592	36458	o	60150
	%	(37.3)	(2.1)		(60.6)		(100.0)

Source: Plan and Budget Organization, Statistical Year Book, 1967 and 1976.

Iranian and foreign employees or a minimum number of Iranian employees in the oil sector. The lack of government policy and the British control of the AIOC resulted in a weak backward linkage between the oil sector and the rest of economy. The oil sector accounted for less than one percent of the total labour force in 1949.

However, the post-nationalization era shows a different picture both with regard to the aggregate employment in the oil sector and the share of Iranian emplyees in the total labour force in the oil sector. The number of employees declined from 67 thousand in 1951 to around 41 thousand in 1972 (table 8-11). The share of Iranian employees moved up from 80 percent in 1949 to 96 percent in 1972. There are two main reasons for the above changes. First, the consortium policy with regard to the efficiency of the Iranian oil industry and second; the establishment of NIOC during the nationalization dispute which has undertaken some of the activities in the oil sector.

The decline in the oil industry's employment during 1957-72 was due to the delibrate policy of the consortium to reduce the excess staff and labour on their payroll. The main reason put forward by the consortium was that the labour costs were too high in the producing and refining operation which weakened its international competitiveness in the oil industry. During this period, the consortium reduced its employees by 60 percent from 44,410 to 17,827; and by increasing the degree of automation, it raised the labour productivity from 0.77 thousand cubic meters in 1958 to 7.20 in 1972 (tables 8-11 8-12). Altough the automation and the growing demand for crude oil, which caused the existing excess capacity to be utilized, has reduced the cost of production per barrel, it is not clear whether the cost of labour had a significant effect on the total cost of oil per barrel because the labour cost has been relatively low, that is, in 1959 it accounted for 13 percent of the total value added. Although the labour cost has been declining (to less than

8 percent in 1965 and 4.5 percent in 1971), the reason largely has been the rising of output due to the utilization of excess capacity of capital rather than the reduction of labour costs. However, the gradual lay off of workers mostly hit the operational workers at a rate of 62 percent (table 8-12) and refinery workers at a rate of 58 percent. In the latter case (Abadan Refinery), the lay-off was due to the partial shut down of the refinery and not because of the existence of excess employees. Considering that the AIOC, in the year before nationalization employed 73930 persons, 40,500 of them working in refineries and the fact the AIOC constructed a new refinery in Aden, during the nationalization dispute, in order to replace Abadan Refinery, one may speculate and say that the partial shut down of the refinery was part of the AIOC and other oil companies' general policies to move their refineries from the recognized risky areas. Another important factor was the foreign ownership of capital which looks for higher profitibility through raising the degree of automation. Foreign capital in the oil sector has not been concerned with the social benefit of the investment and if Iran has received any social benefit, it should not be considered as a part of specified policy. The above shows that the lack of government control on the choice of techique in the oil sector, probably, has reduced the backward effects of the consortium investment in the oil sector.

Contrary to the consortium, the NIOC has increased its contribution to the total employed labour force in the oil sector from 35 percent in 1958 to 70 percent in 1972. The NIOC has been able, to some extent, to compensate the drastic lay-off of workers by the consortium through increasing its activities from the non-basic to distribution and refining. The number of employees of the NIOC increased from 20 thousand in 1958 to around 27 thousand in 1972. In 1973, the whole control of the oil industry was tranferred to the NIOC and the number of employees had increased to 60,000 by 1976. The increase had occured across the board and covered all activities of the NIOC including

Employment in the Oil Consortium For Selected Years

Table (8-12)

Persons

Year	Oil Field Operation	Refinery (Abadan)	Head Office	Total
1958	19200 (43.2)	24919 (56.1)	291 (0.7)	44410 (100.0)
1960	17524 (48.8)	17988 (50.0)	421 (1.2)	35924 (100.0)
1964	11925 (38.9)	18128 (59.0)	655 (2.1)	30708 (100.0)
1968	9040 (38.9)	13392 (57.7)	784 (3.4)	23216 (100.0)
1972	6952 (39.0)	9923 (55.7)	952 (5.3)	17827 (100.0)

Source: Iranian Oil Operating Companies, Annual Report, 1963 and 1967; Plan Organization, Statistical Year Book, 1972.

Contribution of Oil Revenue in the Budget 1937-49

Table (8-13)

Million Rials

	1937	1942	1945	1946	1947	1948	1949
Oil Revenue	206	347	512	677	677	771	901
%	(12.5)	(12.6)	(11.6)	(12.4)	(12.2)	(12.7)	(11.6)
Custom Duties	442	307	457	1205	1312	1911	1679
%	(26.9)	(11.2)	(10.3)	(22.0)	(23.6)	(31.4)	(21.6)
Other Revenues	996	2090	3443	3582	3570	3407	5205
%	(60.6)	(76.2)	(78.1)	(65.6)	(64.2)	(55.9)	(66.8)
Total	1644	2744	4412	5464	5559	6089	7785
%	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)

Source: United Nations, Public Finance Information Papers;Iran, PP.31-33.

operational stage, distribution, petro-chemicals and so on.

However, the above shows that due to the consortium's policy the share of the oil sector in the total employment has reduced from about one percent in 1949 to 0.5 percent in 1973 that is around 2.1 percent of the total industrial labour.

The total effects of the demand -induced influence (intersectoral transaction and employment) explain why the oil sector has made insignificant contributions to the development of the industrial sector in Iran. Taking into account the forward linkages which have created an infant oil-oriented sector with weak backward linkages, one may clearly see the reasons for the isolation of the oil sector from the indigenous economy. Basically, technological requirements of the oil industry and its affiliates are far ahead of the industrial development of the Iranian economy. But, also, to some extent, the lack of government control on the foreign capital involved in the oil sector, the availibility of foreign exchange and luxury fetishism have weakened the possible linkages.

8-2-2 Indirect Effects

The most important effect of oil sector is its indirect effect through its contribution to the government revenue and foreign exchange earnings. Up to 1950, the share of the Iranian government from the total export was not more than ten percent. The very low share of the oil revenue limited its effect on the government budget. However, up to 1927, public finance in the modern form did not exist and even until 1937 there was no data available for the sources of government revenue. During 1937-48, the share of oil revenue in the total gevernment revenue was around 12.5 percent which later slightly declined to 11.6 percent in 1949 (table 8-13). However, on the one hand, the real effect of the oil revenue on the budget may have been underestimated. Around 25 percent of the government revenue came from the custom duties.

Taking into account that the oil revenue accounted for 66 percent of the foreign exchange earnings in the same period[68], it is clear that the government revenue from custom duties was due to the availability of foreign exchange through the oil export. On the other hand, if we make a distinction between the effects of oil revenue accrued to the Iranian government, and the effects of the oil sector, the latter effect is lower due to the imports policy of the AIOC.

First, a large share of imports during this period belonged to the AIOC. On average, up to 1950, the AIOC imports accounted for more than 20 percent, and for most of years they were more than 30 percent. In some years like 1938-39, the AIOC imports exceeded that of the rest of the economy[69]. That part of AIOC'S imports which was sold to its employees and domestic purchases were avoided[70], should be considered as a loss and waste of foreign exchange. Second, since a major part of the AIOC imports were duty-free, which accounted for 97 percent of the total exempted imports, the loss of custom revenue due to the exemption was considerable. Assuming, an average rate of duties for the 1928-51, the loss was as high as 5805 Million Rls. which was about 50 percent of the total oil revenue acrrued to the Iranian government during this period[71]. This consideration may be important if it is recognized that the multiplier effect of the investment in the oil sector has been remarkably limited and the rate of return to capital for the foreign capital involved in this sector was significantly high, the duty exemption was an unnecessary incentive for investment in the oil sector. If a nominal rate of tariff had been imposed on the AIOC imports, not only could it have provided the government with an extra custom revenue, as we have mentioned earlier, it would have also created an incentive for the AIOC to meet its demand from domestic products and develop those industries for which domestic raw materials and manpower were available. This explanation may show the extent to which a wrong government policy can reduce the direct and indirect effects of the

oil sector.

With the raising of the oil revenue in the post-nationalization era, the share of oil revenue in the budget increased to 45 percent and remained more or less unchanged until 1972. The sharp increase in the oil prices during 1973-4 rose the share of oil revenue up to 86.4 percent of the government revenue in 1974 and since then its share has been declining (76.2 percent in 1976) due to the very slow growth of oil revenue (table 8-14). However, if the government revenue from the domestic sale and income tax on profit of the NIOC are also included, the total effect of oil revenue on the budget is still higher. Also, as we have seen in chapter 6, during 1973-76, an extraordinary foreign exchange availability to the Central Bank caused an extra and significant contribution to the direct taxation by the Central Bank which should be considered as a consequence of oil revenue increases, although it may be short-lasting.

Considering the impact of oil revenue on the foreign exchange earning, the effects are far more important. During 1960-72, around 75 percent of foreign exchange earnings were originated in the oil sector. The percentage was increased to 89 percent in 1974 and then declined to 84 percent in 1976 (table 8-15). The declining trend of the share of oil revenue in the total foreign exchange earnings and the budget will continue in the future, due to the very slow growth of oil revenue.

The high contribution of the oil sector to the budget and the foreign exchange earnings has caused the rapid expansion of the public sector. Since the oil revenue has been totally under the control of the government, it has granted the state a relative autonomy in its policy of industrialization. The effects of the oil revenue can obviously be seen throughout government policies with regard to fiscal, investment, credit, employment, and distribution of income. We have examined the effects of the government policies on the economic developement of Iran in the various chapters, here we only

Contribution of Oil Revenue to the Government Revenue During 1959-76

Table (8-14)

Billion Rials

		1959	1963	1966	1970	1972	1973	1974	1975	1976
Oil Revenue[1]		19.4	27.7	47.4	83.8	178.2	311.3	1205.2	1246.8	1329.0
	%	(45.6)	(45.6)	(47.8)	(48.9)	(60.0)	(67.0)	(86.4)	(78.8)	(76.2)
Government Revenue		42.5	60.7	99.2	171.4	302.1	464.8	1394.4	1582.1	1743.9

Note: 1- Percentage share in the total government revenue.

Source: BMI, Annual Report, 1965-76.

Foreign Exchange Receipts by Source for Selected Years

Table (8-15)

Percentage

	1954	1957	1960	1965	1970	1973	1974	1975	1976
Receipts from the Oil Sector	24.4	67.4	68.0	74.3	75.0	81.4	89.2	86.8	84.6
Gas	-	-	-	-	0.6	1.4	0.7	0.9	0.8
Export of Goods	67.2	25.9	20.0	16.2	15.0	8.8	2.7	2.0	1.9
Services	11.9	6.7	12.0	9.5	9.6	8.4	7.4	10.3	12.7
Total Current[1] Receipts	141.2 (100.0)	379.7 (100.0)	528.1 (100.0)	817.3 (100.0)	1690.1 (100.0)	6232.0 (100.0)	20922.0 (100.0)	21972.0 (100.0)	24404.0 (100.0)

Note:1- Value in Million Dollars.

Source: Amuzegar and Fekrat, Op.cit., PP. 34-5; BMI, Annual Report, 1970-76.

look at the effects of oil revenue on the government decision making and the choice of policies.

8-3 Overall Effects of the Oil Sector

During the seven decades of the development of the oil industry in Iran, whenever the government has been under financial pressure or foreign exhcange shortage, the oil sector has been the first to be resorted to. An over-emphasis on the raising of the government revenue through the oil sector, on the one hand, has resulted in the rapid depletion of oil resources, on the other hand and more vital, it has resulted in ignoring the traditional channels of bridging the financial and foreign exchange gaps. In this way, the high share of the oil sector relative to the small industrial base of the economy, first, has stimulated a higher pattern of consumption above the supply capacity of the agricultural sector and industrial sectors. Second, it has cheapened capital relative to labour, and has induced capital intensive techniques mainly in the industrial sector.

As far as the pattern of consumption is concerned, the oil revenue has given a peculiarity to the Iranian society. Contrary to the non-oil developing countries, the state does not rely on the productive sectors for its revenue and foreign exchange needs, but it is the main distributor of income in the country. This has made the pattern of consumption, and thereby the pattern of production, almost subject to the pattern of public consumption or distribution of income by the state. First, the oil revenue has resulted in the expansion of the public sector. Second, it has rapidly increased the rate of payment in the public employment which in turn has affected wage levels and differentials in the whole economy (see also chapter 2). Third, the tax reduction, credit policy and similar measures have affected the distribution of income, upwards. In this way, those who are away from the stream of government expenditure, in particular peasant and industrial rural employment, a

large fraction of urban industrial workers, and small scale activities have received the least of the oil revenue, while those who are mostly dependent on the state including full time employees of public administration and enterprises, the intellectual, professional, business commuity and top industrialists have benefited the most from the oil revenue. With the growing income gap between the former and the latter groups (which has been termed 'clientale') the pattern of consumption has rapidly switched toward modern products mainly consumer durable goods(radios, TV's, Refregeritors, cookers, cars,etc) and modern services in the heart of traditional soceity[72]. This consumption pattern of clientale determines the pattern of production in the modern industrial sector.

Second, the oil sector has affected the changes in the pattern of production. Although the process of economic development is accompanied by a declining share of the agricultural sector in the total output, the process has been accelerated in the case of Iran due to the effect of the oil sector. First, while the oil sector has accelerated the relative changes in the factor proportion, the low profitibility, tenure system and technological rigidity has retarded the necessary progress in the method of production and rising of output. Second, contrary to most of the developing countries, the oil revenue has induced the process by granting the government enough source of revenue and foreign exchange to finance its expenditure and imports and to ignore its efforts in the traditional sector.

Similarly, by ignoring the traditional small scale industries, in particular carpet industries, Iran has gradually lost its most important non-oil exports. Also, by supporting the large scale industries through its fiscal and credit policies, the government has encouraged the capital intensive techniques and undermined the employment creation. The pattern of industrial production has been largely affected by the taste of 'clientale'. Therefore, it is not surprising that the private sector has concentrated on the production

of consumer durablegoods and luxury products.

Taking into account that most of the industries are in the assembling stage, the enormous foreign exchange earnings available through the oil exports has made the expansion of industries possible. In other words, contrary to non-oil developing countries, the development of manufacturing sector has not been hampered by the foreign exchange constraints. It has created a strong linkage between the domestic production and the importation of intermediate goods which should be considered as a 'dependency' of the economy on foreign imports in the long-run rather than a high degree of 'opennes' of the economy. It should be realized that there is a significant and vital difference between a high import ratio for mature economies like Britain and Japan, and a developing country like Iran. While the imports in the former countries are mainly financed through their ability of commodity and service exports, the imports in the latter has been financed through a short-life natural resources. Although a high import ratio may not have an important impliction for the present time when Iran is able to finance its necessary imports, it should be considered a vital indicator for the prospect of the Iranian manufacturing sector in the future. If, by the time of termination of the oil revenue, the Iranian economy is not able to substitute most of its intermediate imported inputs, Iran may not be able to finance the necessary imports through its non-oil exports. In this respect, the foreign exchange constraint not only would cease the expansion of manufacturing sector, but also, it would hamper the production of the existing manufactures. The problem is far too serious, when it is understood that the non-oil commodity exports accounted for only 4 percnet of the total imports in 1976.

While the oil revenue has been the main cause of the rapid expansion of the public sector and the state autonomy, it has also created problems with regard to government revenue and foreign exchange for the future. Since the

national economy is largely dependent on the state's expenditures, the government may not be able to reduce its expenditure without creating economic, social and political problems in the time of revenue constraint. Assuming the rigidity of the government expenditure downwards, the government has to raise the necessary funds from sources other than the oil sector to fill the widening gap in the budget. As has been explained in chapter 6, taking into account the political considerations and administrative inefficiency in the tax collection (due to the availability of oil revenue, the tax system has not fully developed), the Iranian tax system may not be flexible enough to raise the necessary revenue. This is largely a political problem with regard to the nature of the state, rather than an income-elasticity consideration of the tax system. Under these conditions, the Iranian government may resort to deficit financing (mainly printing money). But, the extent to which deficit financing can be used, will be limited to the availability of foreign exchange earnings if inflationary pressure is to be avoided (see chapter 7).

The main problem which the government will be confronted with, in the absence of the oil revenue, is the foreign exchange constraint. The Iranian economy has rapidly grown up with the enormous contribution of oil revenue, which has resulted in the expansion of the base of the economy with regard to the agrregate demand. This demand has been met either through direct imports of goods or through the expansion of substituting industries which in turn has resulted in the higher degree of depednecy to import. In other words, on the one hand, the Iranian economy may not be able, as it has not been so far, to reduce its imports by the expansion of substituting industries and thereby save the necessary foreign exchange. On the other hand, in the absence of the oil revenue, the non-oil exports not only will not be sufficient to maintain the existing import ratio, but as is very likely, not even able to finance the imports of necessary agricultural products. Particularly, the structure of exports shows that the possibility of the expansion of the export base is

small and it is limited by the structural rigidity. Iranian exports are still dependent on the traditional exports such as carpets (17.3 %), cotton (19.6 %), fruits (12.6 %), animal skins and leather (5.8 %) and so on, which accounted for 65.4 percent of non-oil exports in 1976. Industrial products such as washing powder and soap (3.7 %), Glycerine and chemicals (6.1 %), shoes (1.1 %), ready-made clothes, knitwear and textiles (5.1 %), road motore vehicles (4.7 %) (mainly exported to Eastern Europe on barter trade agreements) and others, in total accounted for 32.6 percent (table 8-16). The above structure clearly shows the existing limitation on the expansion of exports, that is, the small base of the traditional sector relative to the economy as a whole, the rigidity of the method of production (see chapter 3 and 4) and thereby the slow rate of growth.

Also, the expected foreign exchange earnings from the exports of gas and minerals are not sufficient to fill the gap of the import bill. In 1976, gas and minerals accouted for only 0.7 percent of the total foreign exchange earnings. According to the Plan Oragnization, the gas revenue will reach 281.2 Billion Rials by 1992[73] which is about 20 percent of the oil revenue in 1974. At the existing rate of growth, unless unexpected increase in demand and prices of minerals and gas occurs, the Iranian government will be faced with a serious problem in the future. As a consequence of the foreign exchange constraint, if deficit financing is taken by the government, the creation of inflationary pressure will be inevitable. Therefore, it may an economic dilemma for the government. Either the government has to reduce its expenditure by a large percentage, a policy not acceptable to the existing ruling classes due to its political consequence, which would result into a deep recession, or it lets the market mechanism lead the economy to hyper-inflation and a large deficit in balance of payments and thereby an economic bankrupcy. In either case, the solution may not be merely an economic one. It is the socio-political factors which may play the major role in preparing the ground for an economic policy.

Pattern of Non-Oil Exports

Table (8-16) Percentage

	1959	1970	1976
1- Traditional and Agricultural Exports:	95.7	74.5	65.4
Hand-knitted Carptes	19.8	19.4	17.3
Cotton	23.6	20.4	19.6
Fresh and Dried Fruits	17.2	12.4	12.6
Skin and Leather	7.1	5.2	5.8
Wool and Soft Wool	8.7	-	-
Cavair	1.9	1.8	0.1
Casings	1.5	1.5	2.1
Cumin Seeds	3.7	1.0	1.1
Gum Tragacanth	3.5	1.4	0.6
Others	8.7	11.3	6.2
2- Mineral and Metal Ores	3.7	7.1	2.0
3- Industrial Products:	0.6	18.4	32.6
Detergents and Soap	-	3.0	3.7
Glycerine and Chemicals	-	3.8	6.1
Shoes	-	2.4	1.1
Ghee and Shortening	-	0.9	-
Ready-made Cloths and textiles	0.2	5.2	5.1
Cement and Mosaic	0.4	1.1	0.5
Road Motor Vehicles	-	0.6	4.7
Others	-	1.4	11.4
1+2+3 Total[1]	102.7	277.9	517.7
	100.0	100.0	100.0

Note: 1- Value in Million Dollars.

Source: BMI, Annual Report, 1970, 1973 and 1976.

Conclusion

The development of the oil industry in Iran, from the early years, shows that the political ability of the government to bargain against the oil companies, the structure of international oil markets and international politics have been the main determinants of the share of oil revenue accruing to the Iranian government. By the rising of the national bourgeoisie during 1920's and 30's and changes of international politics after World War II, the Iranian government has gradually succeeded in its attempts against the oil companies. Also by the gradual changes in the structure of the oil markets from the oligopoly of buyers to the dominance of an oligopoly of sellers, the bargaining power shifted in favour of oil exporting countries by 1970. In this way, the price system came under the control of OPEC, and as a consequence, oil prices rose by 400 percent in 1973-4 which caused a proportional increase in the government revenue.

However, despite the existing oligopolistic structure of the oil markets and the low price elasticity of oil, in the short run, a significant price increase such as 1973-4 can no longer be expected in the future. This would be so because the oil prices, in the short run, are determined by the tolerance of consumers which is largely subject to political factors rather than economic consideration of supply and demand. Taking into account the mutual interests of the Iranian state (and Saudi-Arabia) and the Western countries and the USA, a sharp increase in oil prices will be very unlikely. Assuming a stable oil prices, the oil revenue of the Iranian government in the future will be dependent on the capacity of oil exports. The very high rate of depletion during 7 decades of development of the oil industry, oil resources have been almost exhausted and it may no last for much longer. According to a prediction, Iran will run out of oil exports by the mid 1980s. Therefore, one may safely assume that the oil revenue will tail off from the

Iranian economy before 1990.

The analysis of the growth of oil revenue shows that the Iranian government has never had a long term plan for the exploitation of oil resources. The resources have been considered as non-exhaustable and with zero value in the future. The government aim has been the maximum revenue in the short run rather than maximum utilization of oil resources in the long run. There has been no quantitive target with regard to government revenue from oil resources. The only limitation on oil exports has been the international demand constraints. The main reason for the emphasis on the short run objective should be sought in the political nature of the state rather than merely an economic need.

However, the oil sector has contributed to the development of the Iranian economy both through its direct and indirect effects. While the former has been extremely low due to the enclave nature of the oil industry, the latter has played the major role in the changing the pattern of demand, distribution of income and the structure of the prodcution. These effects have appeared in the form of the state autonomy. Taking into account the political structure of the Iranian society, the autonomy has resulted in an irrationality with regard to economic policies. By expanding its expenditure, both in the form of unproductive spendings for political prestige and investment in the large capital intensive industries, the government has expanded the domestic demand, particularly in the case of the clientale, far above the production capacity of the economy in the long run. Also, by emphasising the development of consumer durable industries, on one hand, the degree of dependency to import of intermediate goods has risen, on the other hand, the traditional export sectors both agricultural and industrial, have been undermined. While this structure of production has risen the need for foreign exchange, the non-oil exports will not be able to fill the imports

bill in the future. By the time of termination of oil revenue, the government will be confronted with a serious foreign exchange constraints. Since it is not able to reduce its expenditure, a serious economic problem will appear in the Iranian economy.

Appendix A

Oil Contracts of 1901, 1933 and 1954

The 1901 Oil Contract

The 1901 oil concession may be dived into two parts; a)- the privilege granted to the oil companies and b)- what the government of Iran could receive in return:[5]

a) The privilege granted under the D'Arcy concession:

1- The 1901 concession provided a 60 year exclusive right to, " search for, obtain, exploit, develop, render suitable for trade, carry away and sell natural gas, petroleum, asphalt, and orokerite" throughout the whole of the empire, except the five northern provinces, that is, covering around 500,000 square miles. The concession also included the right to lay pipelines to the Persian Gulf.

2- The companies were exempted from all land taxes and import duties.

3- The concessionaire could form one or more companies to operate the concession, all receiving the same privileges.

4- The Persian government was obliged to protect the physical assets and personnel of the companies, but the companies were not entitled to any compensation if any damage occured.

b) In return the Persian government was entitled to receive:

1- £20,000 in cash and £20,000 in the stock of the companies within a month of their formation.

2- 16 percent of all the companies net profit per annum as royalty payments.

3- A fixed sum of 2,000 Tomans (£1800) per year in lieu of taxes.

The 1933 Oil Contract

The major points in the 1933 oil concession were as follows:[7]

a)- Although the period of the concession was to be 60 years, it was divided into two 30 year periods in which the payments of roylties and taxes for the

second period could be negotiated.

b) The 1933 oil concession reduced the area under exploitation by 80 percent to 100,000 square miles.

c) Royalty payments were linked to per ton output and APOC (from now on AIOC) agreed to pay the Iranian government the sum of 4 gold shillings per ton of oil either consumed in Iran or exported.

d) A sum equal to 20 percent of the distribution to ordinary shareholders of AIOC in excess of £671250 was to be paid to the Iranian government.

e) Provision was made for adjustment in payment due to the fluctuations in the gold value of the pound sterling.

f) The company was to be completely exempt, for the first thirty years of its operation, from any taxation and import duties for the capital goods and some necessities other than specified by the concession.

g) During the first fifteen years of the cencession, the AIOC was liable to pay tax at a rate of 9 pence per ton for the first 6 million tons of petroleum and 6 pence per ton for the excess of 6 million tons.

h) During the following fifteen years of the concession, the imposed tax was to be raised to one gold shilling per ton for the first 6 million tons and 9 pence per ton in excess of 6 million tons.

i) Introduction of a floor for the government revenue. The AIOC was to guarantee a minimum of £750,000 annual payment as roylty and dividends and a minimum of £225,000 annual payment for the first fifteen years and £300,000 annual payment for the following fifteen years as taxes.

The 1954 Oil Contract

The major points in the 1954 oil concession were as follows:[16]

a) The government specified the establishment of two operating companies, the Oil Exploration and Producing Company and the Oil Refining Company. These companies were entitled to operate the Iranian oil industry on behalf of the NIOC (National Iranian Oil Company). The operating oil companies were

not profit making and their costs were to be covered by NIOC and the trading companies (subsidaries of consortium members) proportionally.

b) 50-50 profit sharing was defined as equal share (between NIOC and the consortium) from the net profit in the producing stage based on the 'posted prices'. Iran received its share in the form of income tax on the consortium profits.

c) The NIOC was entitled to receive 12½ percent of total production as royalty, payable either in kind or in cash at posted prices.

d) The operating companies are exempted from import duties for their materials and equipment for operational stages and medical and hospital facilities.

Note

1 - Heal, G. , Economic Aspects of Natural Resource Depletion, in Pearce, D.E., and Rose,J., The Economic of Natural Resource Depletion, P. 119.
2 - Ibid.,PP. 130-31.
3 - Ibid.,PP. 130-31.
4 - Fesharaki,F., Development of the Iranian Oil Industry, P. 5.
5 - Shwadran,B, The Middle East, Oil and the Great Powers, PP. 15-16.
6 - The fiscal right taken from the Perian government were ": (1) the profits of the British Tanker Co., a fully owned subsidiary of APOC, were to be excluded in all future years from the royalty payments; (2) the profits of other subsidiaries were also excluded from royalty payments to the extent their trading in non-Persian oil; (3) the profits of refining or marketing Persian oil outside Persia were eligible for sizeable deductions before computing royalty payments; (4) subsidiaries were restrictively defined to include only those in which APOC has a majority holding." Mikdashi,Z., A Financial Analysis of Middle Eastern Oil Concessions: 1901-65, P. 18.
7 - For the 1933 concession see, Shwadran,B., Op.cit., PP. 44-45.
8 - According to the UN experts calculation, the cumulative exported production of crude oil , during 1912-1951 was estimated at 290 Million tons with approximate value of £ 1200 Million. Direct payments to the Iranian government in the form of royalties, taxes and share of profits amounted to £ 122 Million in the same period. Ibid., P. 151.
9 - Ibid., P. 60.
10- Ibid., P. 85.
11- Ibid., P. 85.
12- Ibid., P. 90.
13- Ibid., PP. 90-91.
14- Ibid., P. 91
15- Ibid., P. 120.
16- Fesharaki,F., Op.cit., PP. 51-2
17- Ibid., P. 97
18- Shawdran,B., Op.cit., P. 160.
19- Amuzegar,J. and Ali Fekrat,M., Iran: Economic Development Under Dualistic Conditions, P. 32.
20- Shwadran,B., Op.cit., P. 161.
21- BMI, Annual Report, 1349, P. 61.
22- BMI, Annual Report, 1352 (1973), P. 83.
23- Keyhan Airmail Edition, July 19, 1978, P. 7.
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42- Ibid., PP. 221-1.
43- Ibid., P. 223.
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9 Conclusion

9-1 Determining Factors

There may be few countries in which the economic development has been so dependent on the state intervention. Such intervention in the case of Iran has failed to bring about the necessary condition for a long-run sustained economic growth. The failure has been the consequence of the government economic policies in which the long-run economic rationality has been sacrificed for the short-run economic interests of dominant ruling elites. Such economic policies have been affected by two inter-related factors, the reliance on the oil revenue as the major source of government financial resources and the government decision making with regard to the allocation of the resources to different social and economic activities. Although the latter has largely been affected by the former, the latter also has been the responsible factor for the reliance on the former. It is the inter-reaction of these two factors which has shaped the pattern of economic development in Iran (chapters two and eight).

Oil Revenue

The oil revenue has not only provided the government with an easy financial resource, but has also affected the political structure of Iranian society. Due to the importance of oil as a source of energy to the West, the Western European countries and the USA have always closely watched changes in Iranian politics. They have intervened in Iranian political crises whenever their interest have been threatened. They have tried to shape Iranian politics and slow down the rate of change in the political structure by elaborating on its financial assistance and giving some concessions with regard to the bargaining position of the Iranian government against the oil

companies regarding their share of oil revenue whenever a strong opposition to the ruling elites existed. Therefore, it is not surprising that the Iranian ruling elites have protected the interests of their allies in decision making, both with regard to the utilization of oil revenue and the allocation of government expenditure to different sectors (chapters two and eight).

With the rise in importance of oil revenue in the Iranian economy, the state has become more and more independent from the rest of the economy and its social base and thereby the gap between the ruling elites and the ruled classes has widened in the political structure of the society. The gradual development of such independency of the state and the widening gap between these social classes have affected the government decision making with regard to its economic policies. In particular, it has left oil revenue as an external factor to the Iranian economy and has made the economy as vulnerable to changes in oil revenue. The inevitable consequence of such non-existence of control on the oil sector and not having a national long-run plan for the utilization of natural resources has been the short-run effects imposed on the Iranian economy by the international structure of oil markets and its changes during the 75 years of oil production in Iran (chapter eight).

The above process has been reinforced by the effect of oil revenue on the structure of the fiscal system in Iran. Oil revenue has been used to ease the pressure and sacrifice needed for economic development. In particular, it has retarded the development of the fiscal system in favour of ruling elites. While the greater intervention of the state in economic development has required higher revenue, this revenue has been raised through greater pressure on the oil companies. The pressure has always been accompanied by changes in the domestic political atmosphere and

changes in the international oil markets which have brought about the necessary mechanism for readjustment to the new situation. However, the domestic political changes have been concentrated on the pressure on the oil companies rather than seeking a change in the fiscal system and its adaptation to the changes in the economic structure of the society. While the revenue constraint has restricted government expenditure and the changes in the oil revenue have created the necessary displacemnet effects to readjust the government revenue, these shocks have generated only short-term effects due to the exogenity of the oil revenue from the Iranian fiscal system and the under-developed nature of the Iranian tax system. Although it has called for a change in the fiscal system by which the dominant classes of the society could have been brought under the tax pressure and give a higher sacrifice for the economic development, the availability of oil revenue has made it possible for them to refuse the necessay change without jeopardizing their positions and short-run interests. Also, the oil revenue has increased the possibility of using deficit financing to bridge the gap between government expenditure and revenue by reducing the disadvantages of such a channel of financing on the middle and upper classes (chapters two, six, seven and eight).

The refusal to implement the necessary changes in the fiscal system by midlle and upper classes has reinforced the process of gearing the Iranian economy and political system to the short-run changes in the oil revenue. Any success of the state in the bargaining against the oil companies and increasing oil revenue has strengthened its political power to deal with the opposition and has increased its degree of independence from the rest of the economy and even its social base. With the increase in importance of, and dependency on the oil revenue, the Iranian economy has reached the stage at which the pattern of economic development has become subject to

government decision making with regard to the distribution of its spendings.

Government Decision Making

There have been two main considerations with respect to government decision making regarding the determinants of aggregate government expenditure and its distribution to different government functions. First, the government has ensured the flow of oil exports to the Western Europeon countries and the USA (the level of exports has been left to be determined by the demand for and supply of oil in the international market) due to the strong linkage between the Iranian government and its foreign allies. In this way, the level of government expenditure is also determined by the international oil market. Secondary, the distribution of government expenditure has been such as to ensure the perpetuation of the status quo. What has determined the allocation of government expenditure to different functions is the commitment of the state to its Western Allies and its commitment to domestic social forces to ensure political stability. On the one hand, it has had to balance these two factors, while on the other hand, it has had to ensure its domestic social base or even to create such a base by elaborating on its economic policies within the country(chapters two and eight).

As far as the balance between the external and internal factors is concerned, the trade-off point has been determined by the balance of power within the structure of the political hierarchy. When the different domestic social forces had some voice in constituting the political structure of the state, the balance between external and internal government's commitment was determined in favour of domestic social forces. Therefore, the distribution of government expenditure was largely influenced by these forces and the social and economic government expenditure had relatively higher weight. Also, this is the period in which the state had a stronger linkage to its social base both for political and economic support (chapters two and six).

However, the increase in foreign aid and oil revenue has gradually

changed the sequence of causes and effects and has made the economy as a whole gear to government expenditure whose level has been exogenously determined. This has granted the state more autonomy in determining its policy and has given the external factor a high weight. This, particularly, has been noticeable since the mid 1960's when the stability of the Persian Gulf has been undertaken by the Iranian government which also means a higher commitment of the Iranian government to its Western Allies. A higher share of government expenditure has gone to the expansion of the army to fulfill such commitment. The expansion of the army, has on one hand reduced the share of domestic social forces from government expenditure and, on the other hand, the role of the army as a determinant factor in the domestic politics has increased which in turn has reinforced the above process and meant a lower reliance of the state on other political forces. In other words, the change in the balance between external and internal factors has affected the trade-off point among different government expenditures within the Iranian economy and under the revenue constraint. While up to 1966-67, the trade- off point was more or less a reflection of the relative importance of domestic social forces and the state had tried to gain the support of urban dwellers and particularly the urban middle and upper classes, since then, with the expansion of the army, the room for attraction of such support has become narrower and the trade-off point has been affected by the weight of the army in the political hierarchy (chpaters two and five).

Although, as the above shows, the determinant of government expenditure and its allocation to different sectors have been a short-run one, it has produced long-term effects by changing the structure of production, employment and distribution of income. This is the long-term effect which has determined the direction of the economic development, the economic irrationality of the system and its social and political consequences.

9-2 Effects of Government Economic Policies

Production

The government's economic policies have been tailored as such, to materialize the state object with regard to the attraction or even creation of its social base. Therefore, it is not surprising to see that the government economic policies have benefited the urban dwellers and particularly the middle and upper classes. In this respect, the expansion of service sectors and large industries have received higher attention while the agricultural sector has been ignored.

As the consequence of government economic policies, the agricultural sector has shown a poor performance and the rate of growth of output in this sector has hardly reached the population growth rate on average. The problem has been structural and due to the distribution of land into under-economic units, the lack of capital formation and credit as well as institutional backing for peasants after the land reform. The government's direct investment and indirect assistance to the agricultural sector has been very low; and the government price and import policies aimed at lowering the price of food stuff to the urban population have made this sector very unattractive to the private sector. However, the government has tried to raise the output through reorganization of production units after the land reform which shows no significant effects on total prodution. While the agro-businesses and the farm corporations have absorbed a large share of government financial assistance both through the credit policy and government investment in the infrastructure, their contribution to total agricultural production has hardly reached 0,4 percent which indicates that the government policy for the development of the agricultural sector was a complete failure. More importantly, the majority have suffered from the lack of financial support (chapter three).

The industrial sector shows the highest rate of growth relative to other sectors of the economy. The government has played an important role in the modernization of the manufacturing sector. On the one hand, government intervention in the manufacturing sector has been in favour of the development of large industries. Not only direct government investment and government direct assistance have concentrated on the development of capital intensive industries, urban small-scale and rural industries have been silently ignored depsite their importance in domestic production and traditional exports (chapter four).

However, the growth rate of production in large private industries was decreasing during 1969-72, due to the limitation of the small domestic market and the foreign exchange shortage during this period. Although these restrictions have been relaxed since 1973 after the sharp rise in oil revenue, due to the maldistribution of income, the effects of consumption expansion have been short-run and limited to the urban population and particularly the middle and upper classes (Still, the low level of income of peasant families has been the main reason for the narrowness of the rural markets which has imposed a limit on the expansion of the domestic market (chapter four).

The above market limitation has a further implication with respect to the pattern of industrial development. Although since 1972, most of government's direct investment has born fruit and the share of the public sector in the total industrial value added has been increasing, with the market limitation for consumer goods, the public industries which produce intermediate and capital goods will reach their limit sooner or later. Not will this limitation and the technological differences between the private and public manufacturing hamper the further integration within the modern sector of the industry, but so also, will the pattern of investment in the public sector during 1973-76 which has shown a shift towards arms industries

indicate a stronger linkage to foreign suppliers and the irrationality of the choice of investment in the public sector (chapter four).

Government services have been the main reason for the large base and the rapid expansion of the service sector during the 1960–76 period. While the lack of infra-structural investment and human capital has been an impediment to the growth of some of the economoc services such as transport and social services such as education and health services, general affairs and defence exibit sharp increases (chapter five).

The lack of supply of education, particularly in secondary and higher education is enormous; and the quality of education is low at all levels. the gap between rural and urban education has been widening and it seems that rural education is not going beyond simple literacy and cannot be regarded as a base for secondary education. Not only in the short run, has the rural areas been refused a part of oil revenue and the distribution effects of government expenditure, but, also in the long run, the gap would accentuate the existing low productivity and need for specialized manpower in the rural areas. The basic problem has been the lack of qualified teachers and the financing of education system. The latter has imposed a restriction on salaries payable to teachers and has made teaching unattractive to students. Despite the above short comings and the lack of human capital necessary in the long run, the reaction of the educational system to the structure of occupation in Iran at the present time has been rational and effective (chapter five).

The effect of health services has been to stabilize the rate of growth of population. This effect has been a result of improvement in public sanitation and preventive services rather than in medical care. The lack of medical supply to rural areas is the most important deficiency of the health services. Along with the increase in importance of oil revenue and

the independence of the state from the social forces, the consideration of distribution effects of the government expenditure has been undermined; and the health service as one of the government functions has not been distributed equally and has been limited to a fraction of the society. In this respect, the basic problem has been the lack of supply of specialized personnel and budgetary constraints. The underestimation of both education and health services reflects the short-sighted planning and the political structure of the society in which the state ensure the interest of the minority of people on whom it has relied on. With the change in the political structure of the society toward the domination of the military forces, defence expenditure has been over-emphasised.

The political determinant of defence activities has given priority to defence expenditure which registered an increase of seven percent relative to the GDP during 1965-76. The effects of such a high defence expenditure on the economy, have not only been the depletion of foreign exchange reserves and the absorption of skilled manpower in the army, but also the the distortion of the pattern of industrial development and the over-utilization of infra-strucutres (chapter five).

Employment

The change in the pattern of production has not been accompanied by a relative change in the pattern of employment. Not only does the pattern of employment show no significant change, but, to some extent, the position of the agricultural sector in the sectoral employment has been accentuated.

The above shows that the government has failed to stimulate employment in the industrial and service sectors fast enough to absorb the rapid rate of growth of labour force and reduce the pressure of over employment in the agricultural sector. The basic reason for the failure is the development of capital intensive industries in the manufacturing sector. The

government's own industries are the most capital intensive ones and also account for a large percentage of investment in the industrial sector(chapter four).

The government has mainly been concerned with the urban areas, and it has considered the importance of urban employment. In particular, as a consequence of the political nature of the state, it is the middle-classes who benefited from the employment creation by the government (chpater five).

Distribution of Income

Although as the consequence of economic development some degree of maldistribution of income would be created during the economic development, the government economic policies are capable of reducing the speed of such a process. In Iran while the government expenditure has been of the most important source of distribution of income and therefore a source which is totally under the control of the government and subject to government decision making, it has appeared to be the real cause of maldistribution and affected by deliberate government policy with regard to industrial development and the distribution of social and economic services (chpaters three, four and five).

Due to the effects of oil revenue with regard to the independency of the state, the state has been able to choose which social classes it should support and even create, to attract the necessary support for its foreign relation. The distribution effects of the government expenditure with regard to the development of the industrial sector, undermining the rural employment and concentrating its expenditure in areas which benefit the new middle classes in the urban areas, the government has limited distribution effects to a small fraction of the society. In the main rural areas have been ignored (chapters three, four and five).

This maldistribution of income has been further accentuated

by the pattern of industrial development in which the development of small urban and rural industries has been undermined, despite their importance in export, production and employment. In this respect, one has to recognise that even indirectly, the rural areas have not benefited from the government economic policies, mainly due to the lack of linkages between different economic sectors or even within the manufacturing sector (chpater four).

In fact only a fraction of the society which receives a share of the oil revenue through government expenditure has been able to enjoy a higher standard of living in real terms. This fraction consists of big industrialists, who benefited from cheap government loans, protection policy and the government orders for goods and services, top civil servents and military officers as well as a small number of intellectual and professional people. (chapters four, five and eight).

The above pattern has been further aggravated through price and tax policies. While the former has ensured the supply of cheap food and ample luxury products to urban areas, the latter has allowed conspicuous consumption by the upper classes. In particular the tax system has not been used to reduce the maldistribution of income in the country. While there is a large base of taxable income and consumption in the upper and middle income groups they have been largely protected by the tax system. This has mainly been due to the political importance of these classes and the availability of oil revenue. However, this process has also been accentuated by the enormous tax concessions in tax law which reduce the tax burden of the upper classes below than that of lower income groups(chapters three, six and seven).

All these processes and effects of government expenditure and tax and other economic policies have made Iran a unique country with regard to the distribution of income. Oshima has found a Gini Coeffeicient of 0.65 to 0.75

for income inequality in Iran. " Such coefficients are extremely high, higher than any country in East and Southeast Asia, considerably higher than Western countries and probably as high or higher than in Latin American countries for which data are available."(Oshima, H., Income Distribution, Mission Working Paper No. II, Employment and Income Policies for Iran, ILO, Geneva, February 1973 , P. 6; Mimo.)

While the maldistribution of income has been an important factor in the accumulation of capital during the 1960's that is in the early stage of development of import substitution industries, it appeared as an obstacle to the growth of large industries during the early 1970's. However, with such distribution effects of government expenditure, tax and other economic policies, the state is bound to lose its popularity among the majority. The Iranian state has tried to offset such a loss of popularity by reinforcing its military power as a political determinant in the structure of the political system. In this way an even larger share of government expenditure has been allocated to the military expenditure in order to fulfill such a function. This is bound to accentuate the process of maldistribution of income.

On the whole the effects of government spending and tax policy have been to aggravate the distribution of income instead of to correct it and it has become the government's deliberate policy, which has been affected by its politcal nature, to create its social base and grasp the support of a small fraction of the society. Although it might have created such support through its policy in the short run, in the long run it is bound to be a trap of economic irrationality.

9-3 Government Revenue and Expenditure During 1973-76 As an Economic Back Ground to the Present Iranian Crisis

The pattern of economic development during 1960-72 shows that by the

end of the 1960's, the Iranian economy was becoming to face the typical problems of under-development. The growth rate in the industrial sector was declining due to the market limitation and the foreign exchange shortage. The lack of investment in infra-structure and human capital was imposing a further constraint to the growth of industries. The agricultural sector was suffering from over-population, low productivity, lack of financial assistance and institutional backing. Unemployment was rising and the expansion of the service sector was nollonger an alternative source of employment because of the revenue constaint imposed on the expansion of government expenditure. Under these conditions, if there had not been an increase in the oil revenue, the further growth of the Iranian economy would have been severely limited and the government could have shown some rationality with regard to its economic polities. However, the above situation also indicates that the supply response of the Iranian economy will be rigid, if the expansion of effective demand is considered as the remedy to the problems of economic development(chpaters three, four, five and seven).

At the end of 1973 and begining of 1974, the oil price increased four fold as the consequence of the change in the demand and supply conditions as well as the change in the structure of the oil market. Despite the sharp increase in the oil price, the government made no attempt to reduce oil production and even ensured the flow of oil to the West at the highest level. On one hand, this indicates the strong linkage between the Iranian state and the Western countries and the USA. In this respect, the oil revenue made it possible for the Iranian government to undertake a greater responsibility with regard to the security of the oil area of the Persian Gulf. On the other hand, it was a short-term relaxation of the economic bottlenecks which existed in the economy and brought about the possibility of further growth. The increased oil revenue gave the Iranian government the

necessary financial resources not only to carry out its general policy sufficiently, but also made it possible to accelerate the process(chpaters two and eight).

During one year (1974), government expenditure caused an over-expansion of the economy which increased GDP by almost 200 percent. Since the government sought some political prestige through its economic policy, due to the dominance of the political determinant it did not consider the economic consequences of its expenditure. Although a number of economic reports recommended the Iranian government not to expand the economy above capcity of human and infra-structural resources in the short-run, the political importance and the illusion of development and prosperity undermined the severity of the economic consequences of such policy(chpater two).

The government expanded the economy mainly in two ways: a) by raising the level of wages and salaries in the public sector in order to grasp some political support and popularity, b) by raising its investment in construction and other projects with long gestation periods and even unproductive and merely prestige projects (such as arms industries and nuclear reactors, etc). Both factors appeared as sources of inflation in the under-developed Iranian fiscal system; and this was the inflation which initially triggered off the economic and political crisis in Iran(part two and chpater seven).

The sequence of events started from the increase in effective demand through the above channels over and above the capacity of the Iranian economy with rigid supply conditions. With the poor agricultural sector which is characterized by low productivity and with no excess capacity in the short-run, the first effect of the increase in effective demand resulted in a higher demand for food imports which did not create the necessary response in the agricultural sector. Therefore, initially, the result was the increase in demand for food imports rather than an increase in food

prices. At the same time the demand for industrial products was rising which caused a higher demand for imports of raw materials and intermediate products. With the small excess capacity of the industrial sector, before long the demand for imports of final products also increased. Altogether, imports rose very rapidly and far above the capaicty of ports and transport facilities. The transport bottleneck caused prices to rise after less than six months. This was accompanied by other bottlenecks such as skilled manpower and even unskilled labour. The latter was mainly due to the over expansion of the construction sector in particular in military installations and bases. These bottlenecks made the supply response very rigid relative to the expanded effective demand and thereby caused the prices as well as wages in all sectors of the economy to rise (chapter seven).

Although the inflation was under way by the mid 1974, the government made no attempt to cut back its expenditure in the unproductive sectors of the economy in order to reduce the inflationary pressure and buy the time for readjustment. Instead, it tried to combat inflation through liberalization of imports and direct control on retail prices which in turn caused further pressure on the limited capacity of infra-structure and human capital (chapter seven).

The consequence of such rapid inflation was the increase of the imports bill of all sorts. By 1976 the foreign exchange reserve stemming from the rise of oil prices in 1973-4 was wasted in arms purchases, imports of all sorts of commodities and outflow of capital and it was no longer possible for the government to expand the economy without accentuating the the inflationary pressure. The effects of the government's expansionary policy on growth disappeared by 1976 and the economic started a recession. The effects of the increase of wages and salaries disappered in the sharp increase of prices and rent and caused enourmous dissatisfaction on the

part of wage and salary earners as well as retail sellers who could not keep up with the rising of prices and were swept away by large chain stores. The agricultural sector suffered the most from the competition and the wage rise. Allarge number of workers were pushed out from the agricultural sector and were absorbed in construction for a short period. For them, the agricultural sector was no longer the permanent home and they joined the growing unemployed in the urban areas. In the short-run, the inflation benefited a few building and road contractors, top officials as well as imports merchants and big industrialists (chapters seven and eight).

In this way, the economy went back to square one that is the situation of 1972 with some maghified problems. By 1978 it became clear that the government could no longer expand the economy without a further growth of oil revenue. While the structure of oil market and the pattern of demand for energy would not allow the expansion of oil revenue such as the 1974, the Iranian government was bound to reduce its expenditure or else it would have been confronted with inflationary pressure. The economy being so dependent on the growth of oil revenue and the pattern of public expenditures and not having an independent private sector capable of forcing the economy forward, in this situation the occurence of a crisis was inevitable. Taking the dependency of the Iranian economy on government expenditure and its political prestige which came as a consequence of its enourmous spending, the solution could not have come from an economic policy, and social and political changes became a necessity in order to create the appropriate condition for further economic development (chapters two and eight). More importantly, it was the dissatisfaction of the people about the wast of natural resources without real development which brought the begining of the social and political consequences of such an irrational economic policy and this was the begining of the end. However, the changes and the

damages to the structure of production are so great that it will take long time, with enormous difficulties to deal with the structural problems of the Iranian economy even for a decisive government. The most important difficulties may be the high expectation of the people with regard to the standard of living, employment, the agricultural sector and export of non-oil products which in particular have been damaged.

PAGE NUMBERING AS ORIGINAL

Public Expenditure
at current and constant prices, whole Sale

Table(1) Index and per head Public Expenditure

Year	Pub. Exp. Current Prices million rials	Whole Sale Price Index 1959=100	Pub. Exp. Constant prices million rials	Per Head Pub. Exp. rials
1928	277	6.3	4396.8	302.5
1929	349	6.6	5287.9	426.4
1930	353	6.8	5191.1	412.3
1931	374	7.0	5342.8	418.4
1932	481	7.2	6680.6	515.5
1933	509	7.3	6972.6	531.4
1934	624	8.2	7609.7	571.4
1935	751	9.7	7742.3	572.6
1936	1000	10.4	9615.3	700.8
1937	1248	12.4	10064.5	723.0
1938	1528	12.7	12031.5	851.5
1939	2613	14.6	17897.3	1266.6
1940	3111	16.1	19323.0	1328.0
1941	4174	22.9	18227.0	1234.9
1942	3038	44.2	6873.3	458.8
1943	3198	66.3	7235.3	475.7
1944	4419	68.4	6460.5	418.7
1945	4312	65.7	6563.2	419.1
1946	5995	61.2	9795.7	614.9
1947	8021	68.6	11692.4	711.6
1948	5839	73.9	7901.4	472.3
1949	9600	64.2	14953.3	871.9
1950	9200	60.7	15156.5	862.1
1951	10200	64.7	15765.1	874.9
1952	10500	68.8	15261.6	806.2
1953	12600	87.9	14334.4	757.2
1954	15500	97.4	15913.7	820.3
1955	23445	93.9	24968.0	1255.9
1956	30829	101.2	30463.4	1494.7
1957	39660	99.3	39939.6	1905.5
1958	47920	98.1	48848.1	2264.6

Source: League of Nations, Economic Intelligence Service, Public Finance, 1928-37, Vol.LVII, Iran, Geneva, 1938, p.6; United Nations, Department of Economic Affairs, Public Finance Information Papers, Iran, New York, 1951, pp.94-7; United Nations, Economic Survey of Asia and The Far East, 1955-65; Bharier,J., Economic Development in Iran, 1900-1970, pp.26, 46-7 and 68.

Oil and Custom Revenue
(1928-51)

Million Rials

Table(2)

Year	Oil Revenue	Custom Revenue
1928	26.1	216
1929	69.0	241
1930	74.7	253
1931	113.2	240
1932	152.5	385
1933	183.8	347
1934	173.3	401
1935	173.6	442
1936	234.6	528
1937	275.5	686
1938	264.6	569
1939	337.3	586
1940	253.3	675
1941	341.2	489
1942	528.0	578
1943	512.6	474
1944	571.4	759
1945	719.8	294
1946	912.7	1672
1947	909.3	2538
1948	1174.0	2157
1949	1639.9	2951
1950	1433.6	3178
1951	625.8	3423

Source: Ministry of Economy, Revenue for the Iranian Custom (in Persian), Tehran, 1966, P.7.; Amuzegar,J. and Fekrat,M.A. Iran: Economic Development Under Dualistic Conditions, 1971, PP. 18-19.

Government Expenditure
At Current and Constant Prices
Per Head and Foreign Exchange Earnings

Table(3)

Year	Public Expenditure Billion Rials		Per Head Pub. Exp. Rials	Foreign Exch. Earnings Million $ (1)
	Current Prices	Constant Prices		
1959	52.5	52.5	2480	501.6
1960	54.8	53.9	2475	528.1
1961	54.7	51.5	2299	538.7
1962	55.7	53.1	2305	569.8
1963	66.9	61.8	2608	618.8
1964	80.2	72.2	2962	701.4
1965	98.7	89.0	3550	817.3
1966	108.4	97.2	3770	940.8
1967	136.1	122.2	4607	1175.5
1968	168.9	149.5	5480	1325.1
1969	197.4	173.5	6183	1518.7
1970	231.8	195.1	6760	1690.1
1971	291.8	243.7	8231	2733.5
1972	359.1	293.4	9649	3337.0
1973	497.3	376.3	12050	6232.0
1974	1154.4	698.1	21788	20922.0
1975	1569.4	568.4	17338	21972.0
1976	1792.0	638.1	18996	24404.0

(1).,Foreign Exchange Rates for(1959-72)=Rls 76.5 and for (1973-6)= Rls 66.7

Source: United Nations, Economic Survey of Asia and Far East 1964/5; BMI, Annual Report and Balance Sheet,1965/76; BMI, National Income, 1959/71; Plan and Budget Organization, Statistical Year Book, 1976 (2535).

Government Expenditure

Table(4) By Major Function (1928-48)

Million Rials Current Prices

Year	General Affairs	Defence Affairs	Social Affairs	Economic Affairs	Others
1928	119	112	21	25	-
1929	149	141	28	31	-
1930	153	147	31	22	-
1931	143	179	31	21	-
1932	207	186	44	37	-
1933	186	215	54	54	-
1934	276	239	60	53	-
1935	286	256	76	134	-
1936	319	275	92	384	-
1937	347	319	106	477	-
1938	434	403	118	572	-
1939	297	380	172	1425	339
1940	369	485	197	1893	168
1941	516	593	278	2310	477
1942	747	700	231	923	436
1943	998	1000	351	476	347
1944	1857	1117	445	563	438
1945	1687	1096	535	529	375
1946	2412	1545	686	661	693
1947	2576	1479	777	887	2304
1948	2467	1651	891	457	372

(1) Note. For calculation see p. 44

Source: see Table1.

Per Capita GDP, Per Head Government Expenditure and Public Expenditure Ratio

At Current Prices

Table(5). Rials

Year	Per Capita GDP	Per Head Pub. Exp.	Pub. Exp. Ratio (%)
1959	11614	2484	18.9
1960	12261	2515	17.7
1961	12399	2441	16.8
1962	12863	2412	15.8
1963	13182	2823	18.3
1964	14481	3290	19.5
1965	15796	3937	22.0
1966	16787	4204	22.1
1967	18040	5132	26.0
1968	19783	6191	28.0
1969	21516	7035	28.7
1970	23732	8031	29.0
1971	32050	9856	30.1
1972	39142	11810	30.6
1973	57115	15925	28.5
1974	95843	36030	35.0
1975	106073	47872	41.8
1976	136330	53346	36.6

Source: BMI, National Income, 1959-71; Annual Report and Balance Sheet, 1970-76; Plan and Budget Organization, Statistical Year Book, 1977 (2536).

Oil Revenue and Tex Revenue

Table.(6) 1959-76

Billion Rials

Year	Oil Revenue	Tax Revenue (1)	N (2)
1959	19.4	23.1	29.4
1960	21.4	27.8	27.0
1961	21.7	29.9	24.6
1962	22.2	30.7	25.0
1963	27.7	33.0	33.9
1964	36.4	32.7	47.5
1965	50.0	41.3	57.4
1966	47.4	51.8	56.6
1967	54.0	53.3	82.8
1968	61.8	65.6	103.3
1969	70.1	72.9	124.5
1970	83.8	87.6	144.2
1971	155.6	103.3	188.5
1972	178.2	123.9	235.2
1973	311.3	153.5	343.8
1974	1205.2	189.2	965.2
1975	1246.8	335.3	1224.1
1976	1329.0	414.9	1377.1

Note:(1), Tax Revenue = Direct + Indirect Taxation + Revenue from monopolies(excluded Oil Revenue).

Note:(2), N = Oil Revenue + Deficit Financing

Source: BMI, Annual Report and Balance Sheet, 1965-76.

Gross Domestic Product
At Current and Constant Prices
1959=100

Table.(7) Billion Rials

Year	GDP Current Prices	GDP Constant Prices
1959	277.6	277.6
1960	307.8	290.7
1961	324.9	304.4
1962	345.8	321.4
1963	366.3	338.9
1964	410.1	368.1
1965	451.1	402.2
1966	489.5	433.4
1967	542.5	484.2
1968	603.0	530.6
1969	688.3	585.4
1970	798.2	689.7
1971	979.1	778.4
1972	1186.4	889.0
1973	1745.3	1190.2
1974	3149.6	1784.6
1975	3573.7	2025.2
1976	4684.0	2655.8

Source: BMI, Annual Report and Balance Sheet, 1970-76.

Public Current and Capital Expenditure
At Current and Constant Prices
(1955-1976)
1959 = 100

Table.(8)

Billion Rials

Year	Cur. Exp. curr. Pr.	Cur. Exp. cons. pr.	Cap. Exp. curr. pr.	Cap. Exp. cons. pr.
1955	15.3	-	8.2	-
1956	20.3	-	10.5	-
1957	24.2	-	15.4	-
1958	31.4	-	16.5	-
1959	36.6	36.6	15.2	15.2
1960	40.5	40.1	14.3	13.8
1961	40.7	37.5	14.0	14.0
1962	38.7	34.9	17.0	18.2
1963	48.3	41.2	18.6	20.6
1964	53.3	44.9	26.7	27.3
1965	61.7	52.0	37.0	37.0
1966	70.5	60.0	37.9	37.2
1967	82.1	70.5	54.0	51.7
1968	98.8	84.7	70.1	64.8
1969	114.4	98.0	83.0	65.5
1970	135.2	115.0	96.6	80.1
1971	176.7	149.0	115.1	94.7
1972	227.3	193.1	131.8	100.3
1973	334.5	256.3	162.8	120.0
1974	727.8	445.1	348.7	253.0
1975	929.3	337.2	526.8	231.2
1976	1059.8	363.8	620.1	274.3

Source: United Nation, Economic Survey of Asia and Far East, 1955-65; Bank Markazi Iran(the Central Bank), Annual Report and Balance Sheet, 1965-76.

Government Expenditure
By Major Function
1964-76

Table.(9)

Billion Rials

Year	General Service	Defence Service	Social Service	Economic Service	Debt + Miscellen eous
1964	7.3	21.4	21.7	36.0	8.2
1965	7.9	24.8	28.3	44.3	7.9
1966	9.8	30.2	30.6	49.0	6.9
1967	11.3	36.3	32.4	55.9	6.1
1968	22.3	37.7	42.0	72.9	16.4
1969	25.8	44.9	48.5	81.4	21.1
1970	26.5	58.3	49.5	91.7	31.1
1971	30.9	54.9	65.8	101.4	56.8
1972	48.6	91.1	84.6	112.4	93.6
1973	76.1	134.9	118.1	126.0	95.9
1974	118.0	372.6	232.4	290.9	360.8
1975	163.7	476.0	308.2	449.8	246.2
1976	252.6	566.8	400.1	579.7	179.1

Source: BMI, Annual Report and Balance Sheet, 1965-76;
Plan and Budget Organization, Statistical Year Book, 1972-76.

Gross Domestic Product By Major Sectors
At Current Prices
1959-76

Table(10)

Billion Rials

Year	Agriculture	Oil	Industry and Mine	Services	GDP With Oil	GDP Without Oil
1959	85.4	27.7	45.3	107.7	266.1	238.4
1960	90.9	30.1	51.1	118.4	290.5	260.4
1961	92.7	33.7	53.3	122.2	301.9	268.2
1962	96.9	38.3	58.1	129.9	323.2	284.9
1963	98.4	40.6	65.3	137.0	341.3	300.7
1964	110.6	46.4	72.8	156.0	385.8	339.4
1965	120.0	52.4	86.1	178.3	436.8	384.4
1966	121.7	60.8	95.5	195.3	473.3	412.5
1967	128.4	86.3	111.8	211.5	538.0	451.7
1968	139.6	100.1	130.3	243.2	613.2	513.2
1969	147.8	119.4	150.3	273.2	690.7	571.3
1970	160.6	140.7	168.1	314.7	748.1	607.4
1971	172.7	212.6	199.1	365.4	948.9	736.3
1972	201.8	264.0	247.2	477.2	1190.2	926.2
1973	234.4	587.5	332.4	629.3	1783.6	1196.1
1974	303.3	1441.6	436.8	889.1	3070.8	1629.2
1975	333.9	1375.8	621.1	1146.6	3477.4	2101.6
1976	430.1	1741.4	939.4	1468.7	4579.6	2838.2

Source: BMI, National Income of Iran (1959-71); and BMI, Annual Report 1972-76.

Gross Domestic Product By Major Sectors

At Constant Prices
(1959 prices)
1959-76

Table(11) Billion Rials

Year	Agriculture	Oil	Industry + Mine	Services	GDP With Oil	GDP Without Oil
1959	85.4	27.7	45.3	107.7	266.1	238.4
1960	87.1	31.0	49.0	113.1	280.2	249.2
1961	87.9	35.2	52.8	114.1	290.0	254.8
1962	88.8	40.0	57.8	119.8	306.4	266.4
1963	90.3	42.5	65.7	126.0	324.5	282.0
1964	92.2	53.4	69.2	140.9	355.7	302.3
1965	99.5	59.5	81.6	158.8	399.4	339.9
1966	103.0	68.6	92.0	172.6	436.2	367.6
1967	111.1	80.8	106.3	187.0	485.2	404.4
1968	119.7	92.4	119.8	212.0	543.9	451.5
1969	123.4	105.4	130.9	235.2	594.9	489.5
1970	129.1	121.4	144.4	268.2	663.1	541.7
1971	120.5	142.1	166.5	301.1	730.2	588.1
1972	131.3	149.5	191.2	380.3	852.3	702.8
1973	138.8	165.0	224.4	456.6	984.8	819.8
1974	147.0	166.8	271.4	538.0	1123.2	956.4
1975	157.0	148.3	326.4	651.0	1282.7	1134.4
1976	167.1	166.7	406.2	701.1	1441.1	1274.4

Source: BMJ, National Income of Iran, 1959-71; Statistical Year Book, 1975-76; and BMI, Annual Report 1976.

Ratio of (GFDCF) to (GDP)

At Current and Constant (1959) Prices

1959-76

Table(12)

Percentage

Year	(GFDCF)/(GDP) Constant Prices %	(GFDCF)/(GDP) Current Prices %
1959	19.8	19.8
1960	19.8	19.9
1961	19.0	18.0
1962	16.1	14.7
1963	17.0	15.1
1964	17.8	16.4
1965	21.2	19.6
1966	20.2	19.0
1967	22.5	22.2
1968	22.4	22.3
1969	21.1	22.6
1970	20.0	22.4
1971	23.2	22.8
1972	24.7	24.1
1973	23.9	20.4
1974	26.4	18.3
1975	37.3	30.6
1976	36.4	30.6

Source: See Tables 10 and 12.

Ratio of (GFDCF)/(GDP)

By Public and Private Sectors

At Current and Constant(1959) Prices

Table(13) Percentage

Year	Public (GFDCF)/(GDP)		Private (GFDCF)/(GDP)	
	Cons. Pr. %	Curr. Pr. %	Cons. Pr. %	Curr. Pr. %
1959	7.8	7.8	12.0	12.0
1960	6.6	6.5	13.2	13.4
1961	7.2	6.6	11.8	11.4
1962	6.0	5.3	10.1	9.4
1963	7.0	6.0	10.0	9.1
1964	6.5	5.9	11.3	10.5
1965	10.1	9.3	11.1	10.3
1966	8.9	8.3	11.3	10.7
1967	11.0	10.7	11.5	11.5
1968	12.5	12.4	9.9	9.9
1969	12.7	13.7	8.4	8.9
1970	11.9	13.4	8.1	9.0
1971	13.0	12.8	10.2	10.0
1972	12.3	12.0	12.4	12.1
1973	13.1	11.4	10.8	9.0
1974	16.8	11.0	9.6	7.3
1975	20.8	15.6	16.5	15.0
1976	21.3	17.1	15.1	13.5

Source: See Tables 10 and 11.

Gross Fixed Domestic Capital Formation(GFDCF)
By Major Economic Sectors
At Constant (1959) Prices

Table(14) Billion Rials

Year	Agriculture	Industry + Mine	Services	Oil + Gas	(GFDCF)
1965	5.5	43.3	26.2	9.6	84.6
1966	5.2	48.0	27.5	7.3	88.0
1967	7.9	57.9	36.2	11.1	113.1
1968	7.9	65.5	40.1	12.8	126.3
1969	8.9	67.6	43.1	12.2	131.8
1970	9.0	72.5	49.3	8.9	139.7.
1971	12.4	92.2	59.4	14.0	178.0
1972	17.6	108.5	68.1	23.2	217.4
1973	18.0	116.9	83.4	21.6	239.9
1974	27.8	140.3	101.7	25.7	295.5
1975	42.7	210.8	161.5	46.3	461.3
1976	33.4	272.1	162.4	47.5	515.0

Source: See Table 11.

Gross Fixed Domestic Capital Formation(GFDCF)

By Major Industries

Table(15) At Constant (1959) Prices Billion Rials

Industry	1965	1966	1967	1968	1969	1970
(GFDCF)	84.6	88.0	113.1	126.3	131.8	139.7
Agriculture	5.5	5.2	7.9	7.9	8.9	9.0
Industry + Mine	9.6	10.9	15.5	22.3	26.2	29.7
Oil + Gas	9.6	7.3	11.1	12.8	12.2	8.9
Services	7.7	7.7	8.6	10.3	11.0	12.6
Transportation	18.8	19.0	26.8	28.6	28.8	30.6
Communication	0.7	0.8	0.8	1.2	3.3	6.1
Water + Electricity	3.6	4.7	7.9	8.2	7.8	6.6
Housing	27.5	28.6	29.6	30.1	28.1	31.1
Construction Other Than Housing	2.6	3.8	4.9	4.9	5.5	5.1

Source: See Table 11.

Cont...

Gross Fixed Domestic Capital Formation(GFDCF)
By Major Industries
At Constant (1959) Prices

Cont... Billion Rials

Industry	1971	1972	1973	1974	1975	1976
(GFDCF)	178.0	217.4	239.9	295.9	461.3	515.0
Agriculture	12.4	17.6	18.0	27.8	42.7	33.4
Industry + Mine	32.5	32.8	48.2	62.6	100.8	113.8
Oil + Gas	14.0	23.2	21.6	25.7	46.3	47.5
Services	16.1	22.0	42.9	48.2	63.7	68.6
Transportation	32.9	35.2	29.7	41.7	79.7	72.8
Communication	10.4	10.9	10.8	11.8	18.1	20.6
Water + Electricity	13.0	15.0	10.6	13.9	20.5	40.1
Housing	40.5	51.1	50.9	56.1	82.5	108.4
Construction Other Than Housing	6.2	9.6	7.2	7.7	7.0	9.8

Source: See Table 11.

Gross Fixed Domestic Capital Formation(GFDCF)
By Private and Public Sectors
At Current Prices

Table(16) Billion Rials

Year	Total	Public			Private		
		Construction	Machinary	Total	Construction	Machinary	Total
1959	52.7	15.6	5.2	20.8	15.8	16.1	31.9
1960	57.8	14.9	4.1	19.0	20.5	18.3	38.8
1961	54.3	14.1	5.9	20.0	21.3	13.0	34.3
1962	47.4	13.6	3.6	17.2	19.0	11.2	30.2
1963	51.5	17.9	2.5	20.4	19.8	11.3	31.1
1964	63.2	18.5	4.1	22.6	24.4	16.2	40.6
1965	85.5	30.7	9.8	40.5	28.5	16.5	45.0
1966	90.0	27.5	12.0	39.5	30.2	20.3	50.5
1967	119.3	40.5	17.1	57.6	31.9	29.8	61.7
1968	136.5	51.1	25.0	76.1	34.1	26.3	60.4
1969	156.4	62.1	32.7	94.8	36.6	25.0	61.6
1970	167.3	67.8	32.8	100.6	37.3	29.4	66.7
1971	216.7	85.6	35.9	121.5	49.0	46.2	95.2
1972	287.4	108.2	35.2	143.4	66.3	77.7	144.0
1973	363.3	145.9	57.0	202.9	77.3	83.1	160.4
1974	562.0	228.1	108.7	336.8	113.1	112.1	225.2
1975	1065.6	410.9	133.1	544.0	190.1	331.5	521.6
1976	1402.7	583.0	198.8	781.8	307.8	313.1	620.9

Source: National Income of Iran, 1959-71(1338-50); and Statistical Year Book, 1975(2535) and 1976(2536).

Gross Fixed Domestic Capital Formation(GFDCF)
By Public and Private Sectors
At Constant (1959)Prices

Table(17)

Billion Rials

Year	Total	Public			Private		
		Construction	Machinary	Total	Construction	Machinary	Total
1959	52.7	15.6	5.2	20.8	15.8	16.1	31.9
1960	55.5	14.4	4.0	18.4	19.3	17.8	37.1
1961	55.0	15.2	5.6	20.8	21.8	12.4	34.2
1962	49.4	15.0	3.4	18.4	20.5	10.5	31.0
1963	55.3	20.3	2.3	22.6	22.2	10.5	32.7
1964	63.2	19.4	3.7	23.1	25.2	14.9	40.1
1965	84.6	31.7	8.8	40.5	29.1	15.0	44.1
1966	88.0	28.2	10.6	38.8	30.7	18.5	49.2
1967	113.1	40.3	14.8	55.1	31.6	26.4	58.0
1968	126.3	48.9	21.5	70.4	32.4	23.5	55.9
1969	131.8	51.9	27.4	79.3	30.7	21.8	52.5
1970	139.7	56.7	26.7	83.4	31.3	25.0	56.3
1971	178.0	71.8	27.8	99.6	42.7	35.7	78.4
1972	217.4	82.8	25.4	108.2	53.1	56.1	109.2
1973	239.9	91.9	39.4	131.3	51.1	57.5	108.6
1974	295.5	124.9	62.5	187.4	52.5	55.6	108.1
1975	461.3	189.5	67.1	256.6	69.6	134.9	204.5
1976	515.0	208.9	93.6	302.5	90.3	122.2	212.5

Source:See Table 16.

Population and Industrial Output By Industries

Table(18) Billion Rials

Industry		1959	1960	1961	1962	1963	1964
Population in('000)	1)	21171	21776	22398	23038	23696	24373
Food, Beverage & Tobacco	2)	20.9	26.5	27.3	31.5	33.4	41.0
Textiles	3)	15.6	16.9	19.2	19.7	24.5	31.0
Apparels	4)	2.8	3.1	3.5	4.9	5.8	6.1
Wood, Paper & Leather	5)	3.7	4.2	4.2	5.3	7.8	7.6
Chemicals	6)	1.5	1.4	2.4	3.5	3.8	5.3
Non-metallic Minerals	7)	3.6	3.7	2.8	5.2	5.4	6.7
Basic Metal	8)	0.3	0.4	0.6	0.6	0.9	1.2
Metal Products	9)	3.0	3.4	3.6	6.0	5.6	7.6
Capital Goods & Transports	10)	1.8	4.1	3.4	7.6	8.0	9.4
Oil Products & Others	11)	0.8	0.8	1.3	1.4	2.7	4.1
Total Output	12)	54.3	64.8	68.6	85.7	97.9	120.0

Source: BMI, National Income of Iran, 1959-71; Ministary of Economy, ISI, 1973; and Plan and Budget Organization, Statistical Year Book, 1976(2536).

Cont...

Population and Industrial Output

By Industries

cont... Billion Rials

Ind.	1965	1966	1967	1968	1969	1970	1971	1972	1973
1)	25069	25785	26522	27280	28059	28861	29607	30407	31228
2)	70.9	82.9	102.2	120.1	129.0	137.4	156.0	173.9	201.0
3)	36.2	38.8	49.3	53.9	59.5	63.9	70.0	84.7	91.0
4)	21.9	26.5	26.9	28.6	32.6	39.1	47.0	54.4	61.5
5)	9.1	11.0	13.1	14.1	18.4	20.9	23.9	27.8	31.7
6)	5.6	6.3	9.9	12.4	15.4	19.5	23.1	29.9	34.6
7)	8.1	9.3	10.3	11.4	13.1	14.7	17.1	22.4	27.5
8)	2.1	2.8	4.4	5.6	8.1	9.4	12.9	19.3	23.0
9)	7.0	8.3	11.1	13.1	15.0	17.6	19.8	23.1	25.3
10)	11.3	13.5	20.9	28.4	31.7	39.2	47.6	64.0	75.0
11)	3.9	4.7	7.9	9.1	9.5	10.7	10.0	13.6	14.8
12)	177.1	205.1	263.0	293.1	332.1	372.5	428.4	513.1	575.7

Source: BMI, National Income of Iran, 1959-71; Ministary of Economy, ISI, 1973;and Plan and Budget Organization, Statistical Year Book,1976(2536).

Government Revenue According To Major Components (Excluding Special Revenues)

Table(19) Billion Rials

Year	Direct Taxes	Oil Revenue	Indirect Taxes (1)	Other Monopolies	Other Revenue	Profit & Interest Received From Investment Abroad	Total
1959	3.7	19.4	12.9	3.7	2.8	-	42.5
1960	4.4	21.4	14.4	4.1	4.9	-	49.2
1961	4.5	21.7	13.5	4.4	7.5	-	51.6
1962	5.1	22.2	12.4	4.6	7.0	-	51.3
1963	6.3	27.7	15.1	7.3	4.3	-	60.7
1964	5.9	36.4	17.6	5.9	3.3	-	69.1
1965	8.9	50.0	21.6	6.4	4.4	-	91.3
1966	9.9	47.4	24.7	8.7	8.5	-	99.2
1967	11.6	54.0	28.7	8.4	4.6	-	107.3
1968	17.5	61.8	35.1	6.8	6.2	-	127.4
1969	21.1	70.1	38.6	7.0	6.2	-	143.0
1970	28.5	84.7	43.0	8.0	8.0	-	172.3
1971	30.2	155.3	50.4	11.2	11.2	-	258.3
1972	41.9	178.2	60.7	10.3	11.0	-	302.1
1973	56.5	311.2	79.3	8.6	9.2	-	464.8
1974	72.2	1205.2	85.6	13.6	15.2	6.3	1394.4
1975	151.9	1246.8	119.0	30.8	22.6	11.0	1582.1
1976	187.8	1329.1	154.1	23.3	32.5	18.2	1743.9

Note.(1) Discrepencies between figures for 1962-69 from those of Table(6-19) are due the government receipt from the difference between the buying and selling rate of foreign exchange , see Table (6-19).

Source: BMI, Annual Reports 1956-76.

Direct Taxes
By Major Components

Table (20) 1962-76 Billion Rials

Year	Income Taxes	Property + State Taxes	Stamp Duties	Other Direct Taxes	Total Direct Taxes
1962	4.1	0.6	0.4	-	5.1
1963	5.4	0.5	0.4	-	6.3
1964	4.9	0.5	0.5	-	5.9
1965	7.2	1.1	0.6	-	8.9
1966	7.9	1.3	0.7	-	9.9
1967	8.7	1.4	0.9	0.6	11.6
1968	14.1	1.4	1.1	0.9	17.5
1969	17.2	1.5	1.4	1.0	21.1
1970	22.4	2.3	1.5	2.4	28.6
1971	25.6	1.1	2.1	1.4	30.2
1972	33.2	1.4	2.7	1.9	39.2
1973	44.7	2.0	3.7	2.5	52.9
1974	61.7	2.5	5.1	2.9	72.2
1975	138.2	4.2	6.3	3.2	151.9
1976	169.3	6.0	8.0	4.5	187.8

Source: BMI, Annual Report, 1965-76.

Table(21) Oil Revenue, Production, Royalty Payments, AIOC Profit and Per Ton Revenue

Year	Oil Production million of Tons (1)	Payments To Iran £('000) (2)	Payments To Iran million Rials (3)	Profit of APOC (AIOC) £('000) (4)	Revenue per Ton Iranian Government £ (5)	AIOC Profit per Ton £ (6)
1913	0.27	10		27	0.04	0.10
1914	0.38			64		
1915	0.45			86		
1916	0.65			344		
1917	0.89	325		780	0.36	0.87
1918	1.11			736		
1919	1.38	469	11.9	1849	0.34	1.33
1920	1.74	585	19.9	3264	0.34	1.87
1921	2.33	593	30.4	3779	0.25	1.62
1922	3.00	533	30.2	3431	0.18	1.16
1923	3.71	411	19.4	3517	0.11	0.95
1924	4.33	831	34.9	4067	0.19	0.94
1925	4.56	1054	45.8	4397	0.23	0.96
1926	4.83	1400	68.0	4800	0.29	0.99
1927	5.36	502	24.7	4106	0.10	0.77
1928	4.29	529	26.1	3686	0.12	0.86
1929	5.46	1437	69.0	4247	0.26	0.78
1930	5.94	1288	74.7	3785	0.22	0.64
1931	5.73	307[1]	113.2[3]	2413	0.05[4]	0.42
1932	6.4	1525	152.5	2380	0.24	0.37
1933	7.1	1812	183.8	2654	0.25	0.37
1934	7.5	2190	173.3	3183	0.29	0.42
1935	7.5	2221	173.6	3519	0.29	0.47
1936	8.2	2580	234.6	6123	0.34	0.75
1937	10.2	3545	275.6	7455	0.34	0.73
1938	10.2	3307	264.6	6109	0.32	0.60
1939	9.6	4271[2]	337.3	2986	0.43	0.31
1940	8.6	4000	253.3	2842		
1941	6.6	4000	341.2	3292		
1942	9.4	4000	528.0	7790		
1943	9.7	4000	512.0	5639		
1944	13.3	4464	571.4	5677	0.33	0.43
1945	16.8	5624	719.7	5792	0.33	0.34
1946	19.2	7132	912.7	9625	0.37	0.50

Cont...

cont...

	(1)	(2)	(3)	(4)	(5)	(6)
1947	20.2	7101	909.3	18565	0.35	0.92
1948	24.9	9172	1174.0	24065	0.37	0.97
1949	26.8	13489	1639.9	18390	0.50	0.69
1950	31.7	16032	1433.6	33103	0.50	1.04

Notes: 1- This figure shows the original payments . It was revised, according to the 1933 Contracts;

2- Additional payments were made in 1939 ; £1,500,000, making a total of £4270,814 and for 1940-43 additional sum s to make it up to £4,000,000.
3- The Rial payments at the revised figure see Note 1.
4- Calulated according to the original figure. For the revised figure, the per ton revenue is £ 0.21.

Source; Mikdashi, Z.., op.cit. pp.45-46. Table 1.
Shwardram, B., op.cit. pp.132-3 Table 1.
Amuzegar, J. & Fekrat, M.A., op.cit., pp..18-19, Table 1.
Fesharaki, F., op.cit. p.15, table 1.1, and p.17, table 1.2.

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